

FIG. 1A

FIG. 1B

mmFATP1	64	V	R	L	E	L	R	R	R	A	G	D	T	I	P	C	I	F	O	A	V	A	R	R	Q	P	E	R	L	A	L	V	D	A	S		
mmFATP2	41	R	R	V	R	S	Y	R	Q	R	P	V	R	T	I	L	R	A	F	L	E	Q	A	R	K	T	P	H	K	P	F	L	L	F	R		
mmFATP3	35	Q	R	F	S	Y	A	E	A	E	R	E	S	N	R	I	L	A	R	A	F	L	R	-	A	R	G	W	T	G	G	R	R	G	S	G	R
mmFATP4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
mmFATP5	74	L	K	F	R	R	R	L	N	K	H	P	P	E	T	F	V	D	A	L	E	R	Q	A	L	A	W	P	D	R	V	A	L	V	C	T	G
ceFATPa	63	V	K	I	D	L	W	W	R	L	H	Q	N	K	G	I	H	E	L	F	L	D	I	V	K	K	N	P	N	K	P	A	M	I	D	I	E
scFATP	64	V	F	C	Y	I	I	D	V	R	R	H	R	F	Q	N	W	Y	L	F	I	K	Q	V	Q	Q	N	G	D	H	L	A	I	S	Y	T	R
mtFATP	35	A	M	T	G	L	L	A	R	P	N	S	K	A	S	I	G	T	V	F	Q	D	R	A	A	R	Y	G	D	R	V	F	L	K	F	G	

FIG. 1C

[illegible]

FIG. 1D



Appl'n No.:  
Title:  
Inventors:

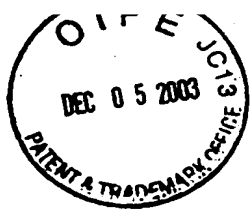
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Andreas Stahl, *et al.*  
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mmFATP1	126	- - - - -	A P G D V V A V F L E	G R P E F V G L W L G L A K A	G V V A A L L N
mmFATP2	101	- - - - -	L R Q G D C V A L F M G N E	P P A V V W I W L G L L K K A	C P M A C L L N
mmFATP3	94	- - - - -	L A P Q A T V A L L L P A G	P D F L W I W F G L A K K A	R T A F V P
mmFATP4	8	- - - - -	- - - - -	- - - - -	- - - - -
mmFATP5	140	I Q N T R D A A A I L V L P S	K T I S A L S V F L G L A K K A	L G V C P V E A A L I N N	
ceFATPa	125	- - - - -	R S G D V V A L L Y M E N S	V F F V A A W M G L A K K A	A A W I N N
scFATP	134	- - - - -	V Q A G D Y V A I D C T N K	P L F V V F L W L S L W N I	C G A F L N
mtFATP	94	- - - - -	V G P G D V V G I M L R N S	P S T V L A M L A T V K	A I A G M L N

FIG. 1E

V N L R R E P L A F C L G T S A A K A L I Y G	G E M A A V A E V S E
Y N I R R A K S L L L H C F Q C C G A K V L L A S P D L Q E A V E F V L P	L P L P L P
T A L R R R G P L L L R H C L R S C S T S S K G A R A L I F G S E M F L E S L E P D I H A	L P
T N L R R G M P L L L V H C I L S V R D T S S A S A I C E E V D I H A	L P
P H S R R K R E Q L L V H S L K I T Q V F I T S V D L Q E N I M L E E V D I H A	L P
S N L T K G T P L L V H S L K I T Q V F I T S V D L Q E N I M L E E V D I H A	L P
Y N T K G T P L L V H S L K I T Q V F I T S V D L Q E N I M L E E V D I H A	L P
Y H Q R G E V L A H S L G L L D A K V L I A E S D L V S A V A E E C G A	

FIG. 1F



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Title:  
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09/405,504  
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mmFATP1	195	Q L G	K S L L	K F C S G	D L	- G P E S I	L P D T Q	L L D P N L A E A P	T T P L
mmFATP2	171	T L K	- K D A	V S V F	Y V	- S R T S	N T N G V D	T I L D K V D G V S	A E P T
mmFATP3	164	A L R	- A M	G L H L W	A T	- Q P E T	N V A G I S	N L L S E A A D Q V D	E P P V
mmFATP4	56	S L E	P T L S	L F C S G	S W	- E P S T	V P V S T	H L L D P L L E D A P	- K H L
mmFATP5	213	K L L	- A E N	I H C F	Y L	- G H S S	P T P G V E	A L L G A S L L D A A P	S D P V
ceFATPa	194	O K L	F D V E	G I E V	Y S V	- G E P K	K N S G F K	N L L K K P E F F L	Q Q D P P
scFATP	204	E I K	N A L	P D V K	L N Y L	- E E Q D	V L T V E	D V E R R F A T T A P A	T N
mtFATP	164	S R G	- - - -	- R V A	- - -	- G D V	L T V E	D V E R R F A T T A P A	T N

FIG. 1G

A Q A P	G K	- -	G	M D	D R L F	Y I Y T	S G T	T T G L	P K A A	I V V H S
P E S W	R S A	- -	G	T T	T P A V	Y I Y T	S G T	T T G L	P K A A	T I N H H
P G Y L	S A	- -	G	M D	D T C L	Y I Y T	S G T	T T G L	P K A A	I S H L
P S H P	D K	- -	G	T T	D K L F	Y I Y T	S G T	T T G L	P K A A	I V V H S
P A S L	R A T	- -	G	M D	D K L F	Y I Y T	S G T	T T G L	P K A A	I V V H S
K T L D	I V	- -	G	T T	T P A V	Y I Y T	S G T	T T G L	P K A A	T I N H H
P L Q L	T D	- -	G	M D	D T C L	Y I Y T	S G T	T T G L	P K A A	I S H L
P A S A	S A	- -	G	T T	D K L F	Y I Y T	S G T	T T G L	P K A A	I V V H S

FIG. 1H

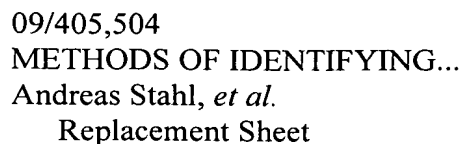
265  
241  
234  
125  
283  
264  
273  
223

[illegible]

FIG. 11

I	M	G	V	G	O	C	V	I	Y	G	L	T	V	V	L	R	K	K	F	S	A	S	R	F	W	D	D	C	V	K	Y	N	C	T	V	V	Q
M	I	G	L	H	G	C	I	V	V	G	A	X	X	X	L	C	D	K	F	S	A	S	Q	F	W	D	D	C	R	K	Y	N	V	T	V	I	O
L	L	G	I	V	G	C	L	G	I	G	A	T	V	V	L	K	P	K	F	S	A	S	Q	F	W	D	D	C	Q	K	H	R	V	T	V	F	O
H	R	G	D	W	Q	C	L	L	H	G	M	T	V	V	I	R	K	K	F	S	A	S	R	F	W	D	D	C	I	K	Y	N	C	T	V	V	Q
V	L	G	F	L	G	C	L	Q	V	G	A	T	C	V	L	A	P	K	F	S	A	S	R	F	W	A	E	C	R	O	H	G	V	T	V	I	L
I	L	G	V	Q	Q	A	L	L	G	G	S	S	C	V	I	R	K	K	F	S	A	S	N	F	W	R	D	C	V	K	Y	D	C	T	V	S	O
L	L	G	A	C	A	I	L	S	H	G	G	C	L	A	L	S	H	K	F	S	A	S	T	F	W	K	Q	V	Y	L	T	G	A	T	H	I	Q
T	V	A	V	S	S	V	I	N	S	Q	A	T	L	A	L	G	K	S	F	S	A	S	R	F	W	D	F	V	I	A	N	R	A	T	A	F	V

FIG. 11



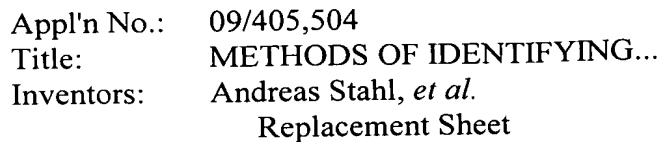
336  
311  
304  
196  
353  
335  
344  
295

[illegible]

FIG. 1K

[illegible]

FIG. 11



V	Y	P	I	R	L	V	K	V	N	E	D	T	M	E	P	L
V	A	R	Y	E	L	I	K	Y	D	V	E	K	D	E	P	I
I	F	P	F	S	L	I	R	Y	D	V	M	T	G	E	P	I
V	Y	P	I	R	L	V	R	V	N	E	D	T	M	E	P	L
L	T	P	F	E	L	V	Q	F	D	I	E	T	A	E	P	L
M	H	P	V	R	L	I	K	V	D	D	V	T	G	E	A	I
S	F	Q	Q	T	L	V	R	M	D	P	N	D	D	S	V	I
P	M	P	L	A	F	V	Y	E	D	L	D	T	G	D	P	L

FIG. 1M

FIG. 1N

mmFATP1	473	NKKIAHSAVFRKGDSSA	YLSGDDVLYMDEELGGYMYFR
mmFATP2	446	EKKKLLRRDVFVKKGGDIYFYF	YVYFYFYFYFYFYFYFYFYFY
mmFATP3	439	KDKLLKDDVFWKSGDDVFVFF	HLHFFLHFFHFFHFFHFFHFF
mmFATP4	333	NKKLIAHSAVFRKGGDQAYL	YVLYLGGYLYFYFYFYFYFYFY
mmFATP5	488	NRRKLVANDVRRVGGDLVLT	LLYLLYLLYLLYLLYLLYLLYLL
ceFATPa	473	NKKTIIRDVFRAKGGSSCW	YFYFYFYFYFYFYFYFYFYFYFY
scFATP	489	KSKVVRDVFRRKGGDAW	YFYFYFYFYFYFYFYFYFYFYFY
mtFATP	423	EKKLVRRNAVFRKGGDCW	YFYFYFYFYFYFYFYFYFYFYFY

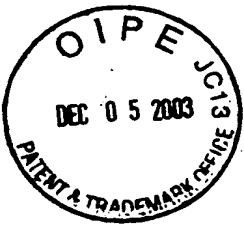
FIG. 10

D	R	S	G	D	T	F	R	W	K	G	E	N	V	S	T	E	V	E	A	V	L	S	R	
D	R	V	G	D	T	F	R	W	K	G	E	N	V	A	T	E	V	A	D	I	V	G	L	
D	R	T	G	D	T	F	R	W	K	G	E	N	V	A	T	E	V	A	E	V	L	E	T	
D	R	T	G	D	T	F	R	W	K	G	E	N	V	S	T	E	V	E	G	T	L	S	R	
D	R	L	G	D	T	F	R	W	K	G	E	N	V	S	T	E	V	E	C	V	L	S	S	
D	R	T	G	D	T	F	R	W	K	G	E	N	V	S	T	E	V	E	A	I	L	H	P	
D	R	M	G	D	T	F	R	W	K	S	E	N	V	S	T	E	V	E	D	Q	L	T	A	S
D	R	L	G	D	T	F	R	W	K	G	E	N	V	A	T	E	Q	V	E	A	L	A	S	

FIG. 1P







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mmFATP1	611	P	R	Q	T	S	D	R	L	F	F	L	D	L	K	Q	R	Y	V	P	L	D	E	R	V	H	A	R	I	C	A	Q	D	F	S	L
mmFATP2	585	P	P	T	I	K	D	T	L	L	Y	F	D	D	A	E	K	T	I	F	P	T	E	R	I	Y	Y	N	A	I	I	D	K	T	L	L
mmFATP3	578	P	S	V	L	S	D	P	L	F	F	L	D	Q	D	I	Q	A	Y	P	L	T	P	A	Y	Y	S	A	L	L	S	G	D	L	L	
mmFATP4	471	P	S	V	L	S	D	P	L	F	F	L	D	Q	D	I	Q	A	Y	P	L	T	P	A	Y	Y	S	A	L	L	S	G	D	L	L	
mmFATP5	627	P	S	V	L	S	D	P	L	F	F	L	D	Q	D	I	Q	A	Y	P	L	T	P	A	Y	Y	S	A	L	L	S	G	D	L	L	
ceFATPa	616	P	S	V	L	S	D	P	L	F	F	L	D	Q	D	I	Q	A	Y	P	L	T	P	A	Y	Y	S	A	L	L	S	G	D	L	L	
scFATP		P	P	T	S	V	V	I	A	P	S	D																								
mtFATP	562	A	D	I	E	D	P	L	Y	V	L	A	G	P	D	E	G	Y	V	P	Y	Y	A	E	Y	P	E	E	Y	S	L	G	R	R	P	Q

FIG. 1S

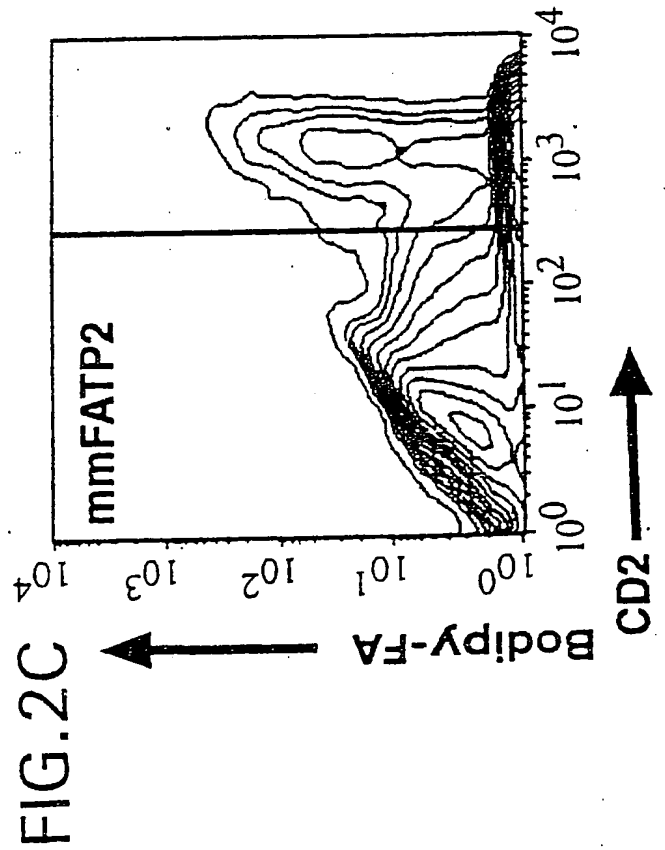
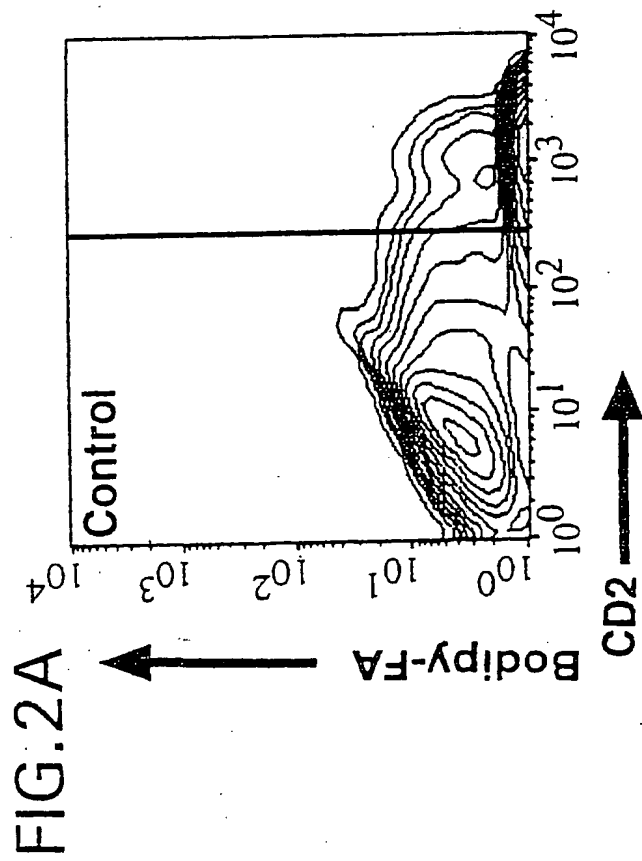
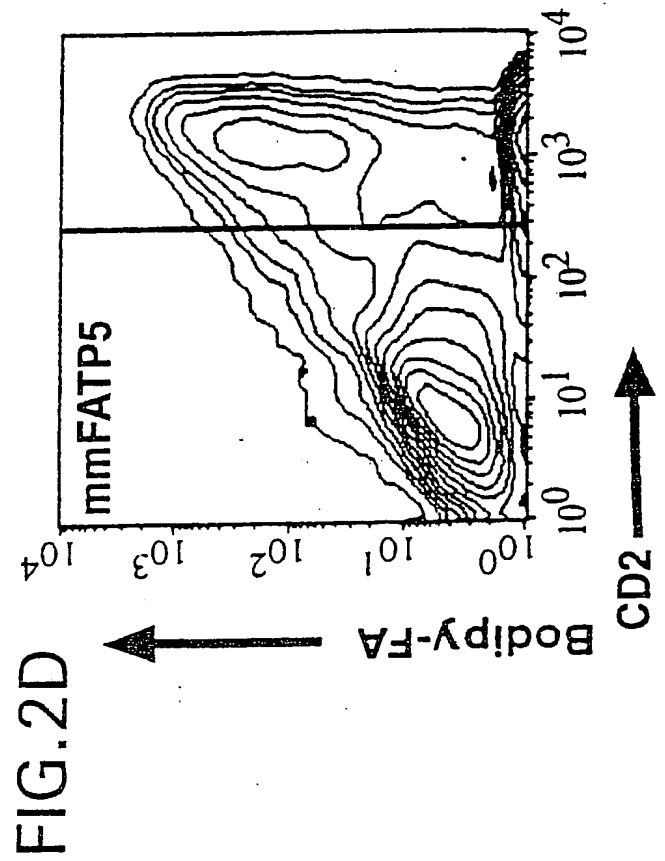
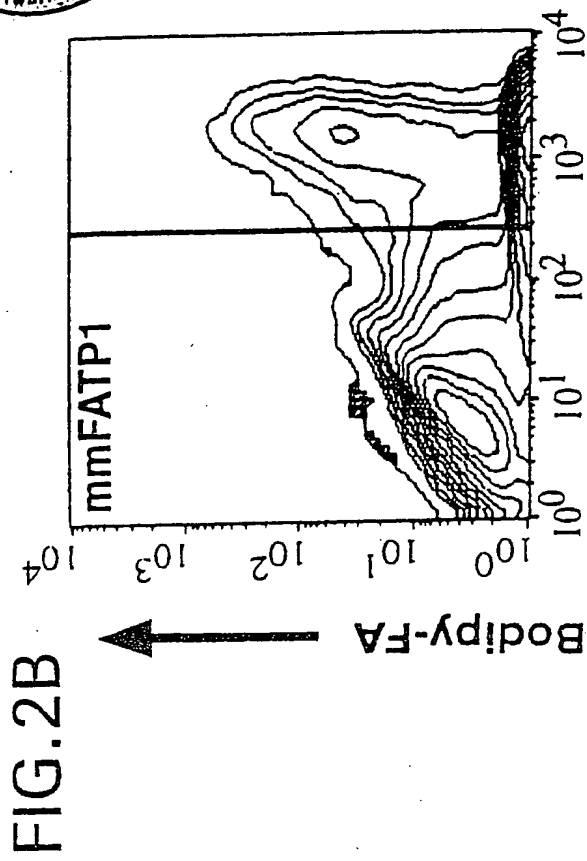




FIG. 3

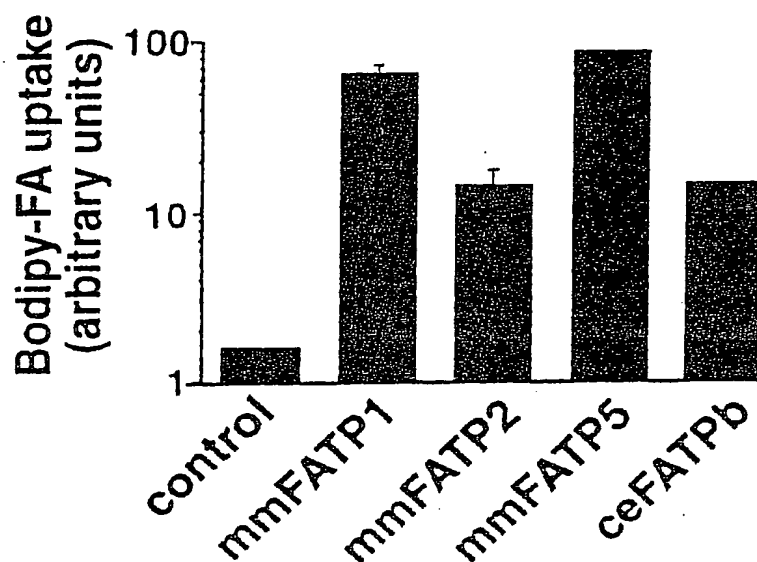


FIG. 4

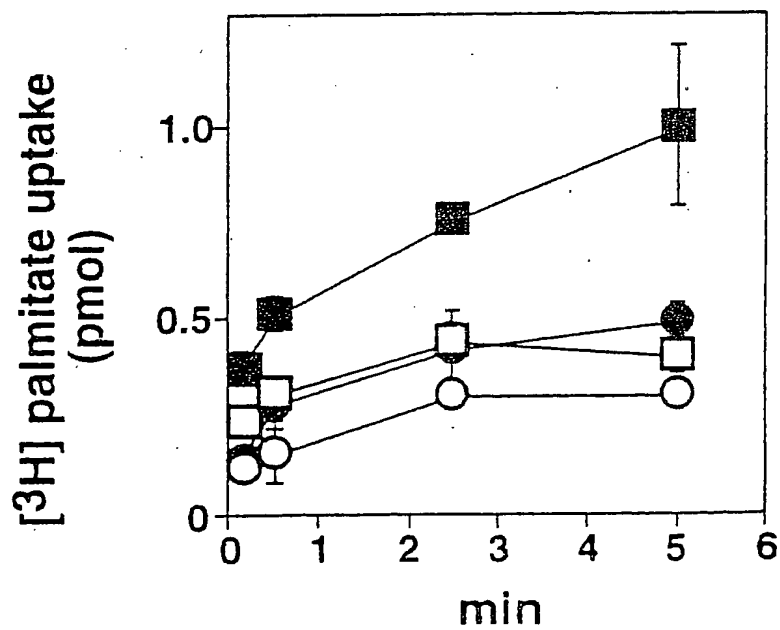
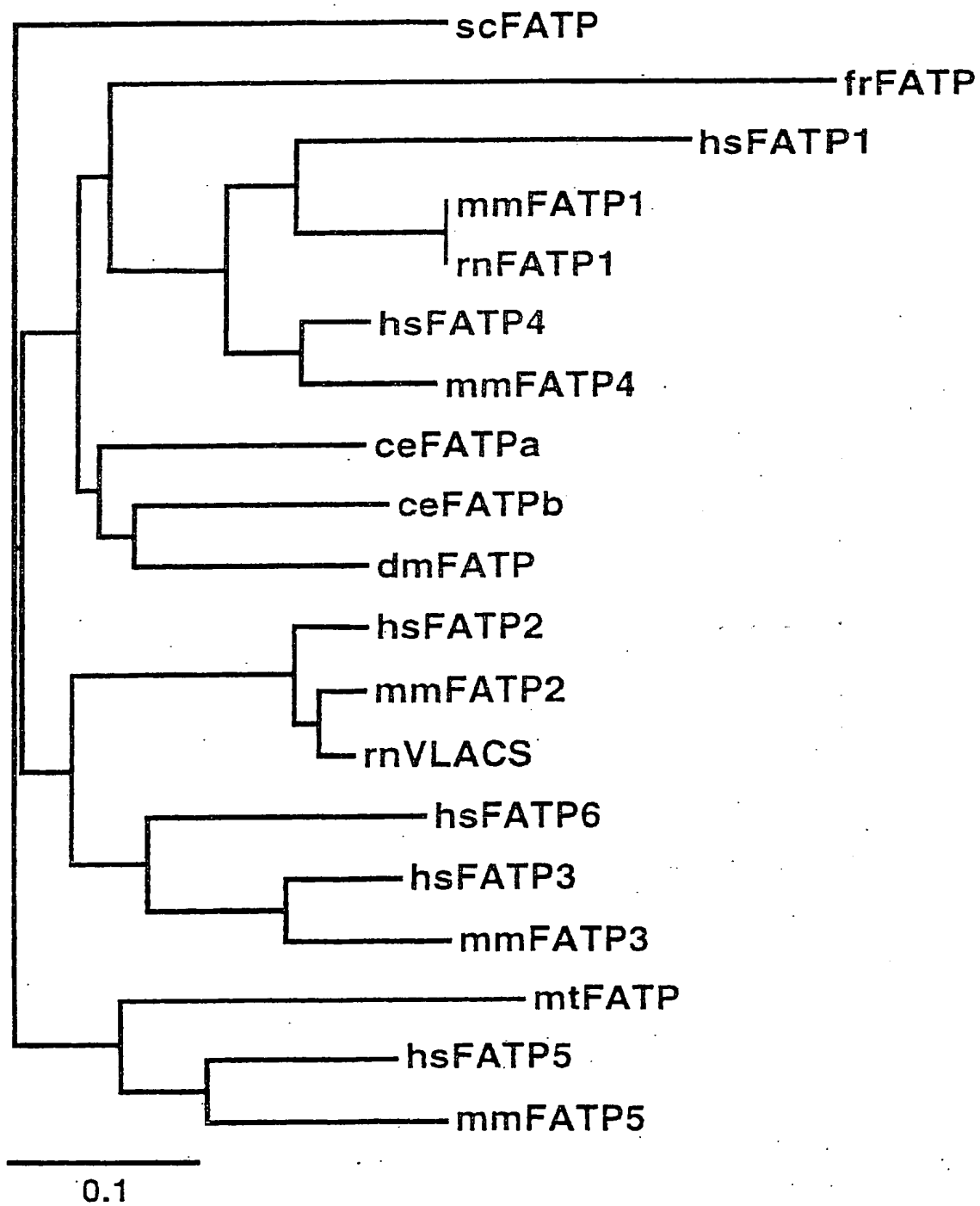




FIG. 5





246	FIFTS	GTGL	PKPAIL	SHERV	IQVSN	VLSFC	GCR	---	ADD	VVYD	MLPLY	HTIG	LVGL	FLGCL	QV	GATC	ML	AP	KFS	ASR	FW	AE	C	RQ	H	GV	FV		mmFATP1																																																									
265	YIYTS	GTGN	PKPAVL	KHFRY	FWL	AMG	AKA	FG	INK	SD	VVY	IT	MP	VH	SA	AG	IM	G	I	SL	IA	F	G	ST	AV	IR	K	K	F	S	AS	N	FW	K	D	C	V	K	Y	N	V	T	AT		mmFATP5																																									
249	---	YIYTS	GTGL	PKSAIM	SRK	SS	VGC	QV	F	---	H	V	L	H	M	T	N	E	S	T	V	T	A	M	P	L	F	H	S	T	A	A	L	G	A	C	A	L	S	H	G	C	L	A	L	S	H	K	F	S	A	S	T	F	W	K	O	V	Y	L	T	E	A	T		ceFATPa																				
256	YIYTS	GTGL	PKAAI	VH	S	R	Y	V	R	I	---	A	F	G	H	S	Y	S	M	P	A	A	D	V	L	Y	D	C	L	P	L	Y	H	S	A	G	N	I	M	G	V	C	Y	I	G	L	I	V	L	R	K	K	F	S	A	S	R	F	W	D	D	C	V	K	Y	N	C	T	V		scFATP															
205	YIFT	SGT	GF	PKAS	V	M	T	H	R	W	L	R	A	L	A	V	F	G	M	G	L	R	L	K	G	S	D	F	L	V	S	C	L	P	L	Y	H	N	N	A	L	I	V	A	V	S	S	V	I	N	S	G	A	T	A	L	C	K	S	F	S	A	S	R	F	W	D	E	V	I	A	N	R	A	T	A	F		mtFATP							
335	QYIGE	ICRYL	L	R	Q	P	V	R	D	V	E	Q	R	H	R	V	L	A	V	C	N	G	L	R	E	A	I	W	E	E	F	T	O	R	F	G	V	P	O	I	G	E	F	Y	G	A	T	E	C	---	N	C	S	L	A	N	M	D	K	V	G	S	C	G	F	N	S	R	I	L	T	H	V	---	YP		mmFATP1									
353	LKVGE	I	L	R	Y	I	C	N	V	I	P	E	Q	P	E	D	K	I	H	V	R	L	A	M	G	T	G	L	R	A	N	V	K	N	F	Q	O	R	F	C	P	I	R	I	W	E	F	Y	G	S	T	E	G	---	N	V	G	L	M	N	Y	---	V	G	H	C	A	V	A	R	T	S	C	I	L	R	M	L	T	P		mmFATP5				
338	QYIGE	ICRYL	L	A	N	P	C	E	E	K	O	H	N	V	R	L	M	W	E	N	G	L	R	G	O	I	W	K	E	F	V	G	R	F	G	I	K	K	I	G	E	L	Y	G	S	T	E	G	---	N	S	N	I	V	N	D	N	H	V	G	A	C	C	E	M	P	---	I	Y	P	H	I	G	S	L	Y	P		ceFATPa							
345	QYVGE	VC	R	L	L	H	T	P	I	S	K	E	K	M	H	K	V	K	V	A	V	E	N	G	L	R	D	I	W	D	F	R	K	R	F	N	I	E	V	I	G	E	F	Y	A	A	T	E	A	P	F	A	T	T	F	O	K	S	D	F	G	I	G	A	C	R	N	Y	G	T	I	I	O	W	F	---	L	S	F	O		scFATP				
295	VVIGE	ICRYL	L	N	O	P	A	K	P	I	D	R	A	H	O	V	R	V	I	C	N	G	L	R	P	E	I	W	E	F	T	T	R	F	G	V	A	R	V	C	E	F	Y	A	A	S	E	G	---	N	S	A	F	I	N	I	---	F	---	N	V	P	R	T	A	G	V	S	P	M	---	P		mtFATP												
419	IRLVK	N	E	D	I	M	E	P	L	---	R	D	S	E	G	L	C	I	P	C	O	P	G	E	P	G	L	I	N	G	I	N	---	Q	O	D	P	L	R	R	F	D	G	Y	V	---	S	D	S	A	T	N	K	I	A	H	S	V	F	R	K	D	S	A	L	---	S	G	D	V	L	M	D	E	L	G	M	F	R		mmFATP1					
437	FELVQ	F	D	I	E	T	A	E	P	L	---	R	D	K	O	G	F	C	I	P	V	E	P	C	K	P	G	L	L	I	T	K	V	R	---	K	N	O	P	---	F	L	G	Y	R	G	S	O	A	E	---	S	N	R	K	L	V	A	N	V	R	V	G	D	L	Y	F	N	T	G	D	V	L	T	L	D	O	E	G	F	F	Y	F	O		mmFATP5
424	VRLIK	V	D	R	A	T	G	E	L	---	R	D	K	N	G	L	C	V	P	C	V	P	G	E	T	G	E	M	G	V	I	K	---	E	K	D	I	L	K	F	E	G	Y	V	---	S	E	G	D	T	A	K	I	Y	R	D	V	F	K	H	G	D	K	V	F	A	S	G	D	I	L	H	W	D	D	L	G	Y	L	V	F		ceFATPa			
434	QTLVR	M	D	P	N	D	S	V	I	R	N	S	K	G	F	C	E	V	A	P	V	G	E	P	G	E	M	L	M	R	I	F	F	P	K	P	E	T	S	F	O	G	Y	L	G	N	A	K	E	T	K	S	K	V	R	D	V	F	R	R	G	D	A	W	Y	R	C	G	D	L	L	K	A	D	E	Y	G	L	W	Y	F		scFATP			
373	LAFME	Y	D	I	D	T	G	D	P	L	---	R	D	A	S	E	R	V	R	R	V	P	D	G	E	P	G	L	L	S	R	V	N	---	R	L	O	P	---	F	D	G	Y	I	D	P	---	V	A	S	E	K	L	V	R	N	A	F	R	D	G	C	W	F	N	T	G	D	V	M	S	P	---	D	G	M	G	H	A	A	F	V		mtFATP		
506	DRSGD	T	F	R	W	R	G	E	N	V	S	T	E	V	E	A	V	L	S	R	L	G	O	T	---	D	V	A	V	G	V	A	V	P	G	---	V	E	G	K	A	G	M	A	I	A	D	P	H	S	---	D	L	D	P	---	N	S	M	Y	O	E	L	O	K	---	V	L	A	S	A	R	P	I	F	L	R		mmFATP1							
522	DRLGD	T	F	R	W	K	E	N	V	S	T	E	V	E	C	M	S	S	L	D	F	L	E	---	E	V	N	V	G	V	P	V	G	C	E	G	---	K	M	A	A	V	K	L	A	P	C	K	---	T	F	D	G	---	K	K	L	Y	O	H	V	R	S	---	W	L	P	A	Y	A	T	P	H	F	I	R		mmFATP5								
511	DRCGD	T	F	R	W	K	E	N	V	S	T	E	V	E	G	I	L	O	P	M	D	V	E	---	D	A	T	V	G	V	I	V	K	M	E	G	R	A	G	M	A	I	V	V	K	D	G	T	---	D	V	E	K	F	I	A	D	I	T	S	R	L	T	E	---	N	L	A	S	A	I	P	V	F	I	R		ceFATPa								
524	DRMGD	T	F	R	W	K	E	N	V	S	T	E	V	E	D	O	L	T	A	S	N	K	E	O	V	A	Q	V	L	G	I	K	P	K	Y	E	G	R	A	G	F	A	I	K	L	D	N	S	L	D	I	T	A	K	T	L	N	D	S	L	S	R	N	L	P	S	A	M	P	L	F	V	R		scFATP											
457	DRLGD	T	F	R	W	K	E	N	V	A	T	O	V	E	A	L	A	S	D	O	T	V	E	---	E	C	T	V	G	V	O	I	P	R	T	G	R	A	G	M	A	I	T	L	R	A	G	A	---	E	F	D	G	---	Q	A	L	A	R	T	V	Y	G	---	H	L	P	C	Y	A	L	P	L	F	V	R		mtFATP								

FIG. 6



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

	mmFATP1	mmFATP2	mmFATP3	mmFATP4	mmFATP5	mmFATP1	mmFATP2	mmFATP3	mmFATP4	mmFATP5	mtFATP	scFATP	ceFATPa	ceFATPb	mtFATP
mmFATP1	100.0														
mmFATP2	50.1	100.0													
mmFATP3	51.8	53.3	100.0												
mmFATP4	72.6	48.4	51.7	100.0											
mmFATP5	50.2	54.0	54.4	50.8	100.0										
mmFATP1	97.5	49.7	51.6	71.4	50.4	100.0									
mmVLACS	50.7	95.2	53.0	50.9	53.6	50.3	100.0								
ceFATPa	54.1	48.6	47.2	53.6	47.0	53.9	49.1	100.0							
ceFATPb	55.7	48.8	46.8	54.2	47.3	54.9	49.0	60.3	100.0						
scFATP	45.5	43.2	42.3	47.0	42.7	45.5	43.9	45.3	43.1	100.0					
mtFATP	47.5	47.8	43.9	48.2	47.2	47.1	48.3	44.9	44.5	42.3	100.0				

FIG. 7



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

mmFATP3 DNA sequence

```
ACCACTCAGCTATAGGCAACAGCTATGACCTGGCATGCTAC 40
GGGTAAAGCTTGGGCGGCGTGGAGGCTTGGCTCTACAGCGCGC 80
GGCGACCGCGCAAGGCTCTCAACAGCGCGCTGCTAGTCTGGGCT 120
GGCGTCTGGCGTACCTGCGCGCGGAGGAGCGCGTACACATAC 160
CTTGGCTCATGCAAGCGCGCGGAGGCGCTTTAGCTAGCGCGAC 200
GCTCAGCGCGCAACGCAACCGGCTTTGGCTGGCGCGCTTTCTGC 240
GGCGACCGCGCGCTGCAAGCGCGCGCGCGCGAGGCTGGCGGAC 280
GGCGAGCTACTCAAGCAAGCGCGAGCGGCTGGCGCGCTGGCGCT 320
GCTCATCGCGCGCTGCTACAGCGCAAGCGCGCGCGCGCTCTGC 360
CAGCGCGCGCGCAAGGCTGGCGGCTGCTGCTGCTGCTAGCGCGCGC 400
```

FIG. 8A





GCATTTTCCTTTTGGATTTTGGTTGGCACTGGCCAAAGCTGGC 440  
CTGGCGACGGCCCTTTTGTGCCCCACCGCTTTTACGGCGAGCAC 480  
CCCTGCTGCACTGCTGCTGCGCAGCTGCGGTGCGCAGTGCGCT 520  
CGTGCTGGCCACACAGTTCTGCACTGCTGCGCAGCGCGCAC 560  
CTGCGCGCCCTTTTCAAGCCATGGGGCTCCACCTATGGGCGCA 600  
CGGGCCCTTCAAACTAATGTAGCTGCAATCAGCAATTTTGGT 640  
ATCGCAAGCAGCACAACCAAGTGGATCAGCCAGTGGCGGGG 680  
TAACCTCTCTGCCCCCCCCAGAACATAATGGCAACCTGCTGT 720  
ACATCTTCAACCTCTGCGCACTACTGGCCCTGCCCCAGGCTGC 760  
TCCAAATCAGTCTCTCTCAAGGTTCTACAGTGGCAGCGCATTC 800  
TAACATCTCTGCTGCGCAGTCCACCTAGCAGCAAGTCTCTACC 840  
TCCCACTCCCACTGTAAACATGTCTGCGCTCCCTTTCTGGG 880  
CATTTGTTGGGCTGCTTTGGGCAATTTGGGGCCACCGTGGTCTG 920  
AAACCCCAAGTTCTCAGCTAGCCAGTTCTTGGCAAGATTGGC 960  
ACAAACACAGCGGTGCACTGTCTTCCAGTACATTGGGGAGTT 1000  
GTGCGCATACCTTCTCAACCAAGCCCCCGCAAGGCACAG 1040  
TTTCAACATAAGCTGCGCTTGGCACTGGGCAAGTGGCTTGC 1080  
GCCCCACACCTGCGCAGCGTTTCTGCGGCGATTTTGGCAAC 1120  
TCTGCACTACTGCGCAGCTATGGCCATCAACAGGGGCAAC 1160  
GTAGCTACGTTCAATTACACAGCAACCGCAGGGTTCAGTGG 1200  
GGCGAGCTTCTGCGCTTACACAGCACTCTTCCCCCTTCTC 1240  
CTTCATTCCATACCAATGTCATCAACAGGGCAGCCATTTGG 1280  
AATGCGCCAGGGGCACTGCACTACCACTCTCCAGGTGAGC 1320  
CAGGCTACTGCTGGGCCCCAGTCAAGCAGCAAGTCCCCCTT 1360  
CCTGGGCTATGCTGGGCGCTCCGCAAGCTGGCCAGGCAAG 1400  
CTGCTCAAGCATGTCTTCTGCTGCTGGGCAAGTTTCTTCA 1440  
ATACTGGGCAACCTCTTGGCTCTGCTGATCAAGCAAGGCTTCT 1480  
TCACTTCCACCACTGCTGCAACACACCATCAGGTGCAAG 1520  
GTCACCAATGTGGCCACAACCTCAAGTGGCTCAGGTCTTGG 1560  
ACACCCCTGCACTTCTTTCAGCAAGGTCAACATCTATGGAGT 1600  
CAGGCTGCCAGGGCAGCAAGGCAGGGCAGGCATGGCGGCC 1640  
TTGGCTCTGCGGCCCCCGCAGGCTCTCAACCTGCTGCAAG 1680  
TCTACAGCCATGTTTCTGCACTACTTGGCAACCTATGCCCC 1720  
AACCTGGCTTCTCAGGCTCCAGCAATCTTTGGCCACTACT 1760  
CACACCTTCAAAACAGCACAAGCTTAGCTGGCCATCAGG 1800  
GCTTTCACCCCACTGCTGCTGCTCAACCACTCTATGTTCT 1840  
GCAACCAAGATATAGGGGCTAACCTGCCCCCTCAACCTGCC 1880  
CGGTACAGTGGCCCTGCTGCTGCAACCTTCCATCTCAA 1920  
AACCTCCACCTCAGGCAAGGGCTGGCAAGGTACAGGCGAC 1960  
CATGGCTGCAACAGGCAAGGCTTTTGGGCTATCTTTTCTAT 2000  
ATGCAGTCAATTATTTTCTAATAAACAGCTGCAAGCTTAAAA 2040  
AA 2080  
AAAAAAA 2087

FIG. 8B



mmFAIP3 protein sequence

AADPESSSESGCSLAWRLAYLAREQPTHTFLTHCAQRFSYAEAERESNRIA 50  
RAFLRARGWTGCGRRGSGRGSTEECARVAPPAGDAAARGITAPPLARGATV 100  
ALLLPAGPDFLWIWFLAKAGLRFAFVPTALRRGPLLHCLRSOCASALVL 150  
ATEFTLESLEPDLPALRAMGHILWATGPEINVAGISNLLSEAADQVDEFVP 200  
GYLSAPQNMIDTCLYIFTSGITGLPKAARTSHLKVLCQGFYHLCGVHQE 250  
DVTYIALPLYHMSGSLLGIVGCLGIGATVVLKPKFSASQFWDQKHRVIL 300  
VFQYIGELCRYLMVNQPPSKAEFDHKVRLAVGSGLRPDIWERFLRRFGPLQ 350  
ILETYGMEGNVATFNNTGRQCAVGRASWLYKHIFPFSLIRYDVMIGEPT 400  
RNAQGHOMITSPGEFGLLVAPVVSQOSPFLGYACAPETAKDKLLKDVFWSG 450  
DVFFNTIGDLLVCDEQGFLEHFDRTIGDITRWKGENVATTEVAEVLEHIDFL 500  
QEVNTYGVIVPGHEGRAGMAALALRPPQALNLVQLYSHVSENLPYARPR 550  
FLRLQESLATTEITFKQOKVRMANEGFDPSVLSPLYVLDQDTCAYLPLTP 600  
ARYSALLSGDLRI 613

FIG. 9

mmFAIP4 DNA sequence

CCCAAGCGTCCGCCCAAGCGTCCGCCATGGCCAGCTGGG 40  
CGTGCAGCGGGCTCTCATCAACACCAACCTTAGGCGGCAT 80  
GCCCCGCGCCACTGTCTTGACACCTCAAAGGCACGAGCTC 120  
TCATCTTTGGCAGTGAGATGGCCCTCAGCTATCTGTGACAT 160  
CCATGCTAGCCCTGCGAGCCCACTCAGCCCTCTTCTGCTCT 200  
CGATCCCTGGCAGCCCAAGCAGAGGCGCGTCAGCACAGAGC 240  
ATCTGCAACCTCTTCTGCAAGATGCCCCCAAGCAACCTGOC 280  
CAGTCACCCAGACAAGGGTTTACAGATAAGCTCTTCTAC 320  
ATCTACACATCGGGCAACACGGGGCTAACCFAAGCTGCCA 360  
TTGTGGTGCACAGCAGGATATATCGTATGCGCTTCCCTGCT 400  
GTACTATGCATTCCGCATGCGGCTGATGACATTGTCTAT 440  
GACTGCTTCCCTCTAACCCTCAAGCAGCAACATCGTG 480  
GGCATTTGGCAGTGCCTTACTCCAGGCTGACTGTGGTCA 520  
CCGCAAGTCTCTCAGCTCCCGGTTCTGGCATGATTGT 560  
ATCAAGTACAACTGCACAGTGGTACAGTACATTGGCGAGC 600  
TCTGCGGCTAACCCTCTCAACAGCCACCCCGTCAAGGCTCA 640  
GTCTCGGCACAAGGTGCGCATGGCACTGGGCAACGGTCTC 680  
CGGCAGTCCATCTGCAACCGACTTCTCCAGCCGTTTCCACA 720

FIG. 10A



TCCTCCAGGTGGCTCAGTTCTATGGGGCCACTCAATGCAA 760  
CTGTAGCCCTGGGCAACTTTTCAAGCCGGGTGGGGGCTGT 800  
GGCTTCAATAGCCGCATCCTGTCTTTTGTGTACCTTATCC 840  
GTTTGGTACGTGTCAATCAGGATAACATGCAACTCATCCG 880  
GGGACCCGATGCAAGTCTGCATTCCCTGTCAACCTAGGTGAG 920  
CCAGGCCAGCTGGTGGGTGGCATCATCCAGCAGCAOCTC 960  
TGGCGCCGTTTCCAGCGGTACCTCAACCTAGGTGCAACAA 1000  
CAAGCAAGATTGCTAATGATGTCTTCAAGAGGGGCAACAA 1040  
GCTTACCTCACTGGTCAAGTCCCTGGTCAATGCACTGCTGG 1080  
GTTACCTGTACTTCCGCAATGGCACTGGGCAACGTTCCG 1120  
CTGCAAGGGGCAATGTATCTACCACTCAGGTGCAAGGGC 1160  
ACACTCAGCCGGCTGCTTCAATATGGCACTGTGTGGCAGTTT 1200  
ATGGTGTTCAGGTGGCAGCAACTCAAGGCCAGCAGCAAT 1240  
GGCTGGCGTTGCAAGTCCCATCAGCAACTGTCAOCTGGAG 1280  
AGCTTTGCAACAGACCTTCAAAAAGCAGCTGCCCTCTGTATG 1320  
CCCGCCCCATCTTCCCTGGCGTTCTTGGCTCAGCTGCCACAA 1360  
CACAGGCAOCTTCAAGTTCCAGCAACACAGTTGGGCAAG 1400  
CAGGGCTTTTCAOCCATCTGTGTGTCAAGCAOCCGCTGTCT 1440  
ATCTGCAATGCTGGCAAGGGCTGCTACGTTGGCACTGCAOCC 1480  
GCAAGGCTATACCCGCACTCCAGGCAAGGCAAGCAAGCTG 1520  
TCATTTCOCCCTACATCCCTCTCAGGGGCAAGCATGCTG 1560  
CATTCAGAGCCCTAGCGTCCACCCCAAGGGTCCCTGGGCA 1600  
ATGCCAGCAOCCAAAGCTAGCAGGGGCGGCAOCTCCGCGCT 1640  
AGGTGCTCATCTCCOCTCTCCCAAACTGCCAAGTCACTCA 1680  
CTGGCGCTTCCOCCCAOCCCTCCAGAGGCTTTCTGTCAAGT 1720  
CTCATCCAAAGCTGTGTCTTCTGGTCCAGGGGTGGGGCTG 1760  
GGCCCAAGGTTTCTCTATAGGCTCCCTTACGATGGTATCTT 1800  
GGGTCCAGCGGGCCAGGGTGTGGCAAGCACTCACTAAGA 1840  
TCCCTCCAAATCAGAAAGGCAAGCTTACAAAGCAOCCAGGCA 1880  
AAGCCTGTAGCACTCAGCAAGCTAAGTGGCCAGCACTATA 1920  
GTTGGCCAGTCACTCCATGTCCACAGCACTCTTGGTCCAG 1960  
AGCTGCCAAAGTGTCAOCTCTCCCTGGCTGCAOCTCTGGG 2000  
CAAAAAGAGCAAGCATGTGGCCACTGGGCAOCTGTCTCAA 2040  
CAAGTCAAGCATCACACTCAGTCCCTTGTCTCTCCAGCTT 2080  
OCTTGTCTTGTCTCTGGGCAAGGCAAGCAAGTGTCTCTG 2120  
TCTGTCTTCTCTGGCTGTCTGTCTAGTCTGTGTGTCTCT 2160  
CATCTGTCTTAGCTCAGTGTGGGCAACAGGCATCAGG 2200  
ACAGTGTGGCTCAGGGGCAATAAACTCTGCTTCACTCC 2240  
TCTTAAAAA 2280  
AAAAA 2301

FIG. 10B

## mmFATP4 protein sequence

HASAHASMAKLGVEAALININLRDALRHCLDTSKARAL 40  
 IFGSEMASAICETHASLEPTLSLFCSGSWEPSIVPVSTEH 80  
 LDPLLEDAPKHLPSHPDKGFTDKLFYIYTSGITGLPKAAI 120  
 VVHSRYRMAASLVYYGFRMRPDDIVYDCLPLYHSSRKHRG 160  
 DWQCLLHGMIVWIRKKFSASRFWDDCIKYNCTVVOYIGEL 200  
 CRVLLNQPPREAESRHKVRMALGNGLRQSTWIDFSSRFHI 240  
 PQVAEFYGCATECNCSLGNFDSRVGACGNSRILSFVYPIR 280  
 LVRVNEDIMELIRGPDGVCLPCQPGQPGQLVGRILIQODPL 320  
 RRFDDGYLNQCANNKTIANDVFKKGDQAYLTGDLVLMDELG 360  
 YLYFRDRIGDIFRWKGENVSTTEVEGITLSRLIHMALVAVY 400  
 GVEVPGIEGRACMAAVASPI SNCDLESFAQILKKEPLIYA 440  
 RPIFLRFLPELHKTGIFKFQKTELRKEGFDPSVWKDPLFY 480  
 LDARKGCYVALDQEFAYTRIQAAGEEL

506

FIG. 11

## mmFATP5 DNA sequence

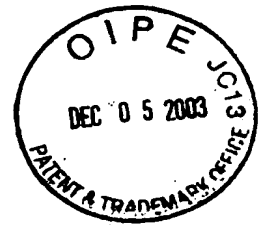
CACATCATCAGAGCTAAGACAGACTACACGGCTCTCATCTAC	40
TTTCAGAAACAGGCCAATGCCATGGGTATTTGCAAGAACTA	80
ACCTTACTGCTGTGTGCTGCTTCTGCTGGTTGGCCCTGGGGC	120
AGCCCCCATGCGCAGCAGCTATGGCTCTGGCCCTGGCGTG	160
GTTCCTTGGGACAGCCCCACATGCCCTTGTGCTGCTTGGCTTG	200
GCATGTGCTGGGCAGACCCCTGGATCAGCTCCCTGCATGCCCC	240
ACTGGCTCAGCCCTGGTAGCAGCAGCTCTTACCTTATTCTCT	280
ATTGCCCTCTACAGCCACCCCCAGGGCTACGCTGGCTGCGAT	320
AAACATGTGTGGCTTTACCTTCAAGATGCTTTTCTATGGCC	360
TAAAGHTCAGGCGACGCCCTTAAACAAACATCCTCCACAGAC	400
CTTTGTGCAATGCTTTACAGCGGCAAGCACGTGGCATGGCCT	440
CACCGGGTGGCCTTGGTGTGTACTGGGTCTCAGGGCTCCT	480
CAATCACAATAAGCCAGCTGGATGCCAGGTCCTGTACAGGC	520
AGCATGGGTCCCTCAAAGCAAAGCTCAAGCATGCGGTATC	560
CACAAACACAACACATGCTCTGCTATCTTTAGTTCTCCCGT	600
CCAAACCATTTCTGCTTTTACGTGTGTTTCTGGGGTTGGC	640
CAAGTTGGGCTGCCCCCTGTGGCCTGGATCAATCCACACAGC	680
CCAGGCAATGCCCTTGCCTACACTCTGTACGGCAGCTCTGGGG	720
CCAGTGTGCTCATTTGTGCATCCAGACCTCCAGGACAACT	760
GCAACAAAGTCCCTCCCAAGCTGCTAGCTCAGCAACATTTCAC	800

FIG. 12A



TCCTTCTACCTTGGCCACAGCTCACCCACCCCGGCAGTAG 840  
AGGCTCTGGCAGCTTCCCTGGATGCTGCACCTTCTGACCC 880  
AGTACCTGCCAGCCCTTCCAGCTACCTTTAAGTGCATAATCT 920  
CCCTGCCATATTCATCTTTACTTTCAGGCAACACTGCACTCC 960  
CAAAGCCAGCCATCTTTATCACATCAGCGGGTCATACAACT 1000  
CAGCAACCTGCTGCTCTTCTGCTGCTGCTGCTGCTGCTGCT 1040  
CTGGCTCTATCAGCTTCCCTACCTTCTGCTACCATACCTAGGGC 1080  
TTGCTCTTGGCTTCTCTGCTGCTGCTGCTGCTGCTGCTGCT 1120  
CTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1160  
GCTCAGTGGCGGAGCATGCGCTAACAGTCTCTGCTGCTGCT 1200  
TGGCTCAATCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1240  
AACCAGCAACCAAGTACATACAGTGGCTGCTGCTGCTGCTGCT 1280  
ACTGCACTTGGCGCAATGTGCTGCTGCTGCTGCTGCTGCTGCT 1320  
GCTTGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1360  
AGAGGGCAATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1400  
GGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1440  
CTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1480  
GCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1520  
CCAGCAACCAAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1560  
AACCAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1600  
CAATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1640  
CTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1680  
AAGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1720  
CCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1760  
TCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1800  
TCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1840  
CATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1880  
GGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1920  
CCCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1960  
GCATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2000  
CTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2040  
TCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2080  
CATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2120  
AATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2160  
TCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2200  
CTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2240  
CTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2277

FIG. 12B



mmFATP5 protein sequence

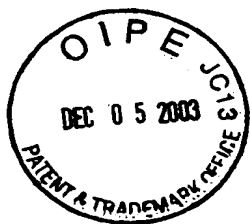
MAIALRWELGDPTCLVLLGLALLGRFWLSSWMFHWLSLVG 40  
AALITLFLPLQPPFGLFWLHKDVAFTEKMLFYGLKFRRL 80  
NKHPPETFDALERQALAWEDRVALVCTGSEGSSTINSOL 120  
DARSCQAAWLKAALKDAVIQNIRDAAILVLPSKITISAL 160  
SVFLGLAKLGCPVAWINFHSRCMPLLSVRSSCASVLIVD 200  
PDLQENLEEVLPKLLAENIHCFYLGHSSPTPGVEALCASL 240  
DAAPSDPVPASLRATIKWKSPAIFITFTSGTIGLKPAILLS 280  
HERVIQVSNVLSFCGRADLVVDVLPYHTIGLVLGFLG 320  
CLQVGCATCVLAPKFSASRFWAECRQHGIVITLYVGEILRY 360  
LCNVPEQPEDKIHTVRLAMGIGLRANWKNFQQRFGPIRI 400  
WEFYGSTEGNGLMNYVGHOGAVGRITSCILRMLITPFFELVQ 440  
FDIETAEPLRLKQGFCEIPVEPKPGILLIKVRKNQFFLGY 480  
RGSQAESNRKLVANVRVGDLYFNTIGLVLLDQEGFFYFQ 520  
DRIGDIFRWKGENVSTGEVECVLSSLDFFLEENVVYGVFVP 560  
GCEGKVGMAAVKLAPGKTDFGQKLYQHVRSWLPAYATPHF 600  
IRIQDSLETTINTYKLVKSRLVRECFDVGLIADPLYIILNK 640  
AQIFRSIMFDVYQAVCEGIWNL 662

FIG. 13

hsFATP2 DNA sequence

ATGGCATTCAGCTCTTTTCCCTGCACAAAGTGGATCAAGTATC 40  
AACTCAACCTATCCCAGAGTCATGGAGGCTCAAGTCACT 80  
TTTTCACCTCCTGCTTATACATTTATACCTTCTGCAACCA 120  
CAGGCTCTTCCAAAAGCAGCCATGATCACTCATCAGCGCAT 160  
ATGGTATGCAACTGGCCTCACTTTTGTAAAGCGCATTCAG 200  
GCAGATGATGTCATCTATATCACCTCTGCCCCCTTTACCACA 240  
GTGCTGCACCTACTCATTTGGCATTCAGGATGATTTGTTGGC 280  
TGGTCTACTCTTGGCTTGGGACTAAATTTTCAGCCAGC 320  
CAGTTTTCGATCACTGCACAAAATACAAAGTCACCTGICA 360  
TTTCACTATATCGGTCAGCTGCTTGGTATTTATGCTACTC 400  
ACCACAGAAACCAATGACCGGTCATCATAAAGTCAGACTG 440  
GCAGTGGCAATGGCTTACGAGGAGATGTGTGGCAGACAAT 480  
TTGTCAAGCATTTTGGGACATATGCATCTATCAGTTCTA 520  
TGCTGCCACCTGACGCAATATTTGCTTTTATCAATTATGCG 560  
ACAAAAGTTGGCTGCTGTGTGCAAGAGTAAACTACCTACACA 600  
AAAAAATCATAACTTATGACCTGATTAATATCATGTGGA 640  
GAAAGATGACCTGTCCGTCATCAAAATGCTATTTGGCTC 680  
ACAGTTCCCAAGGTCAGGTGCACTTCTGGTTTTCAGAAA 720  
TCACACAACTTACACCATTTAATGGCTATGCTGCAAGAAA 760  
GGCTCAGACACACACAAAACCTCAGCAGATGTCTTTAAG 800

FIG. 14A



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

AAAGCAGACCTCTATTTC AACAGTGGACATCTCTTAATGG 840  
TTGACCATCAAAATTTTCATCTATTTCACGACAGGTGG 880  
ACATACATTCCGGTGGAAAGGGCAAAATGTGGCCACCACT 920  
CAAGTTCCTGATATAGTTCGACTGGTTCATTTTTTTTCCAA 960  
GCAAGTAAAATGTTTATGCGAGTGCATGGGCCAAGATNAT 1000  
CGAGGTTCGAATTGGCATGGCNITCCNITCAAAATGGAAA 1040  
CAAAACCATGCAATTTTCATGCAAGCAATTTTTTTCAGNAC 1080  
ATTGCTGATAACCNACCTAGTTATGCAAGGCCCCGGTTTT 1120  
NTAAGTAANACAGGACACCATTTGACATCACGTGAATTTTA 1160  
AACACCGCAAAATGACCTTTGGTGGAGGAGGGCTTTAACC 1200  
CNGCTGTTCATCAAGATGCGCTGTGATTTTCTTGGATGACA 1240  
CAGCAAAAATGTATGTGCGCTATGACTGAGGACATNTATAA 1280  
TGCCATAAGTGTNTAAAACCCGTGAATNTGATATTTCCCA 1320  
GGAGGATAATTCAACATTTTCCAGAAAGCAAACTCAATGGAC 1360  
AGCCACTTCATATAATCCAACTTTAATTTGATTGACATT 1400  
GTGAGCAAAATTTTGTAGGAAATTTGCATACCCGTAAAGGG 1440  
ACACTTTTTTTTAAATAACAGTTGAGTCTTTGCAAGTAAAAA 1480  
GATTTAGACATTATTATTTTTTCAGTGTGCACTACTGTTT 1520  
GTATTTTGCAAACTGAGCTTTGTGCGAGGCAAGGCATTATTT 1560  
TTTAAAAATACCTAGTAAATTAAGAACACCAACATGTGAA 1600  
AAAAAAAAAAAAAAAAAAAAA 1622

FIG. 14B

hsFATP2 protein sequence

YIYISGTTGLPKAAMTHQRIWYGTELTVVSGLKADVDIY 40  
ITLPEFYHSAALLIGIHGCI VAGATLALRIKFSASQFWDCC 80  
RKYNVIVIQYIGELLRYLONSPOKENDRLHKVRLALGNEL 120  
RGDWWRQFVKRFGDICTYEFYAATGKNIGFMNYARKVGAV 160  
GRVNYLQKKLITTYDLIKYDVEKDEPVRDENGVCVRVKEGE 200  
VGLLVCKTITQLTFPENG YACAKAQTEKKKLFDVFKKGLYF 240  
NSGILLMVLHENFTYFHLRVGDI FRWKGENVATTEVADIV 280  
GLVDF 286

FIG. 15

hsFATP3 DNA sequence

CAATTGGGCACCCCCAGGGGCACGTGATGGCCACATCTCC 40  
AGGTGAGCCAGGGCAAGTTGCTAAAGCATGTCTTCCGGCC 80  
TGGGCATGTTTTCTTCAACACTGGGGACCGCTGGTCTGTC 120  
CATCAACCAAGGTTTTCTCCGCTTCCATCATCGTACTGGAG 160

FIG. 16A



ACACCTTCAGGTCGAAGGGGCAATGTGGCCACAACCGA 200  
GGTGGCAGAGGTCCTTCAGGGCCCTAGATTTTCTTCAGGAG 240  
GTCAACGTCATATGCACTGCTGGCCAGGGCATCAAGGCA 280  
GGGCTGGAATGGCAGCCCTAGTTCCTGGGTCCCCCCCCAAGC 320  
TTTGGACCCCTATGTCAGCTCTACACCCAGGTGTCTGACAAC 360  
TTGGCCACCTTATGCCCCGGCCCCGATTTCCTCAGGCTCCAGG 400  
AGTCTTTTGGCCACCACACACACCTTCAAAACAGCACAAGT 440  
TGGCATGGCAAATCAGGGCTTCGACCCACGACCCCTGTCT 480  
GACCCACTGTACGTTCTGCAACAGGCTGTAGGTGCCCTACC 520  
TGCCCCCTCACAACCTGCCCGGTACAGCGCCCTCTCTGGCAGG 560  
AAACCTTCGAATCTGCAACCTTCCACACCTCAGGCACTG 600  
ACACAGCAACTCTGTGCGGGTGGGGGGGGGTTCAGGCTGTAC 640  
TGGCGTGTACGGCATCTTTTCTATACCAACTGGGGTCA 680  
CTATTTTGTAAATAAATGTGGCTGGAGCTGATCCAGCTGTCT 720  
TCTCACCTACAAAAAAAAAAAAAAAAAAAAAAAAAAAAA 753

FIG. 16B

hsFATP3 protein sequence

QFGTFRGTVWPHLQVSQKLLKDVERPGLVFFNIGDLLVC 40  
DDQGLRFHRTIGDIFRWKGENVATTEVAEVFFALDFLOE 80  
VNVYGVIVPGHEGRAGMAALVLRPFHALDLMQLYTHVSEN 120  
LPPYARPRFLRLQESLATTEIFKQOKVRMANEGFDPSTLS 160  
DPLYVLDDQAVCAVLEPLTTARYSALLAGNLRI 191

FIG. 17

hsFATP4 DNA sequence

TCAAGTACAACCTGCACCATTTGTTCATANCATTGGTGAACCTG 40  
TGCCGNTAACCTCTCTCAACAGCCACCCCGGGTAGGCAGAAA 80  
ACCAGCACCAAGGTTCCCATGSCACTAGGCAATGGGCTCCG 120  
GCAGTCCATCTGCAACCAACTTTTCCAGCCGCTTCCACATA 160  
CCCCAGGTGGCTCAGTTTCTACGGGGGCCACACAGTGCACCT 200  
GTAGCCCTGGGCAACTTCCACAGCCAGGTGGGGGCTGTGG 240  
TTTCAATAGCCGCATCTCTCTCTGTGTAACCCATCCGG 280  
TTGGTACGTTGTCAACAGGACACCATGCAAGCTCTCCGGG 320  
GGCCGCAAGGGGCTCTGCATTCCCTGGCCAGCCAGGTACGC 360  
GGGCGAGCTGGTGGGGCCCATCATCCAGAAAGACCCCTGT 400  
CGCCGCTTCCATGGCTAACCACACAGGGGGGCTACACACA 440  
AGACATTGGCCAAGCATGTCTTCAACAAGCGGGACCCAGGC 480  
CTACCTTACTGGTCAATGTGCTGGTCAATCCAGCGTGGGC 520

FIG. 18A





TACCTGTACTTCCGAGACCCCACTGGGCAACGTTCCGCT 560  
GCAAGGTGACAACGTGTCCACCACCCAGGTGCAAGGCAC 600  
ACTCAGCCGCTGCTGCAATGGCTCAAGTGGCCGCTAT 640  
GGTGTCCAGGTGCCAGCAACCCAGGCGCGGCGCGCAATGG 680  
CTGCTGTGGCCAGCCCACTGGCACTGTCACTTGGCAGC 720  
GCTTTGCTCAGGTC 734

FIG. 18B

hsFATP4 protein sequence

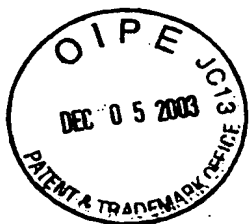
IGELCRYLLNQPPREARNQHVRMALGNGLRQSTWINESS 40  
RFHLPQVAEFYCATENCSLGNFDSQVCAOGENSRILSFV 80  
YPIRLVRVNEDIMELIRGPDGVCIPCPGEPGQLVGRITQ 120  
KDPLRRFDGYLNQGANNKTKAKLVFKKGDQAYLTGVLM 160  
DELGYLYFRDFTGDIFFWKGENVSTTEVEGILSRLLMAD 200  
VAVYGVVEVPGIEG 213

FIG. 19

hsFATP5 DNA sequence

CNTGCTCTTGTACCAAGTCAATGGCACTTTGTGCTTGGCA 40  
TCCTCGGCTGCTTACATCTCGGAGCCACCTGTGTCTCGC 80  
CCCCAAGTTCTCTACTTCTCTGCTTCTGGCATCACTGTGG 120  
CAGCATGGCGTACAGTATCTGTATGTGGCGCAGCTCC 160  
TGCGNTACTTGTGTAAACATTGCCCCAGCAACCAAGGACCG 200  
CACACATACAGTCCGCTGGCAATGGGCAATGCACTACGG 240  
GCTCATGTGTGGGAGACCTTCCAGCAGCGTTTCCGTTCT 280  
ATTTCCGATCTNGGCAAGTCTTACGGGCTYCCACAGAAGG 320  
GCAACATGGGGCTTTAGTCAACTATTGTGTGGCGGGCGCTG 360  
CGGGGSCCTGGRGGCAAGCATGCAAGCTTGGCTCTCTCCAA 400  
TGCTGTCCCCCTTTGAGCTGGTGCAGTTCCACATGGAGGC 440  
GGCGGAGCCTGTGAGGCAACAATCAGGGCTTCTGCTATCCCT 480  
GTAGGGCTAGGGCAAGCCGGGGCTGTGTTCACCAAGGTGG 520  
TAAGCCAGCAACCCCTTGTGGGCTACCGCGGCCCCCGACA 560  
GCTGTCCGAACCGAAGCTGGTGGCAACGTGGGGCAATCG 600  
GGCGACGTTTACTACAACACCGGGCAAGTACTGGCCATGG 640  
ACCGGCAAGGCTTCTCTACTTCCGCAACCACTCGGGCA 680  
CACTTCCGATGCAAGGGCGAGAACGTGTCCACGCAACAG 720  
GTGCAAGGCGGTGTGTGGCAGGTGCACTTCTTGCACAGG 760  
TTAAGCTGTATGGCGTGTGGTCCAGGTGTGTACGGTAA 800  
GGTGGCATGGCTGCTGTGGCAATAGCCCCCGGCACT 840

FIG. 20A



TTCCAGGGGACAAAGTTGTACCAAGCAAGTTCCGGCTTGGC 880  
TCCCTGCCCTACGCTACCCCCATTTCATCCGCATCCAGCA 920  
CGCCATGCAGGTCACCAAGCAAGTTCAAACTCATCAAGACC 960  
CGGTTCGGTGGGTACGGCTTCAATGTGGGCAATCGTGGTTG 1000  
ACCCCTCTGTTTGTACTGGACAACCGGGGCCCCAGTCCCTCCG 1040  
GCCCCTCAAGGCACAATGTACCAAGGCTGTGTGTGAGGCA 1080  
ACCTGCAGGGCTCTGATCACTGGGCAACCCACTGGGGTAG 1120  
GCAATCAAAGCCAGCCACCCCCACCCCCACACACTCGGTGT 1160  
CCCTTTTCATCCCTGGGCGCTGTGTGCAATCCAGCCCTGGCCAT 1200  
ACCCCTCAACCTCAGTGGGCTGTAAATGACAGTGGGCGCTG 1240  
TAGCAGTGGCACAATAAACTCAGMTGYGTTCACAGAAA 1278

FIG. 20B

hsFATP5 protein sequence

EGQHGAIVQLLLGALRGPGGKDGACLLRMLSPFELVQFDM 40  
EAAEFVRINQGFCLFVGLGEPLLLIKVVSQQPFVGYRCP 80  
RELSEKRLVRNVRQSGDVYNTGDLAMDREGLYFRDRL 120  
GDTFRWKGENVSTHEVEGVL SQVDFLQQVNVYGVCFPGCE 160  
CKVGMAAVALAPGQTFDGEKLYQHVRWLPAVATPHFIR 199

FIG. 21

hsFATP6 DNA sequence

CGCTTGTGTGTTAAACAACAATTTTCAGCAAGCCAGTTT 40  
TGCAGTCACTGCAACAAGTATGATGTGCACTGTGTTCAGT 80  
ATATTGCAGAACTTTGTGCTACCTTTTGCAACAATCTAA 120  
CAGACAAGCAGAAAAGCATCATAAGGTCGGTTTGGCAATT 160  
GCAATGGCATAAGCAGTATGTATGCAGACAATTTTATAG 200  
ACAGATTTCGAATATAAAGGTGTGTGCACTTTTATGCAGC 240  
TACCGAATCAAGCATATCTTTTCATCACTTCACTGGCACA 280  
ATTGGAGCAATTGGCAGACAATAATTGTGTTTACAAACTTC 320  
TTTCCACTTTTCACTTAATAAAGTATCACTTTTCAAAAAC 360  
TCAACCCATCACAATGAGCAGGGTTGGGTATTCATCACA 400  
AAAAGCAGAACCTGGCACTTCTCATTTTCTCGAGTCAATGCAA 440  
AAAATCCCTTCTTTTGGCTATGCTGGGCGCTTATAAGCACAC 480  
AAAAGACAAATTGCTTTGTGCTGTGTTTTTAACAAGGGCAT 520  
GTTTACCTTAATACTGGCAGACTTAATAGTCCAGGATCAGG 560  
ACAATTTTCTTTTATTTTGGCAACGTAAGTGGCAGACACTTT 600  
CAGATGCAAGGACAATAATGTGCGCAACCACTCAGGTTCCT 640  
CATGTTATTCGAATGTGCTATTCATACAGCAAGCAAAAG 680  
TCTATGGGTGTGGCTATATCAGGTTATCAAGTACAGCAGG 720

FIG. 22A



AATGGCTTCTATTATTTTAAAACCAAATACATCTTTACAT 760  
TTGGCAAAAAGTTTATCAACAAGTTGTAAACATTTCTACCCAG 800  
CTTATGCTTGTCCACGATTTTTTAACAATTTCAGCAAAAAAT 840  
GCAAGCAACAGCAACATTCAAACTATTCAAGCATCAGTTG 880  
GTGGAAGATGGATTTAATCCACTGAAAATTTCTGAACCAC 920  
TTTACTTCATGCGATAACTTCAAAAAGTCTTATGTTCTACT 960  
GACCAGGCAACTTTATCATCAATAATGTTAGGGCAATA 1000  
AAACTTTAAGATTTTTTATATCTAGCAACTTTTCATATGCTT 1040  
CTTAGCAACAGTGCAGCGGGGGTATATGATTCTTTATCAA 1080  
ATGGCGCAAGCGGAGCTAACATTAAATTATGCATGTACTATA 1120  
TTTCCTTAATATGACAGATAATTTTTTTAATTGCATAACAA 1160  
TTTTAATTTCTTTTAAATTCATATAAACACAGTTTCATTATT 1200  
CTTTTTATCTATTTGGAGATTTCAGTGCATAACTAAGTATT 1240  
TTCCCTAATACTAAAGATTTTTTAATAATAAATAGTGGCTA 1280  
GCGGTTTGCACAATCACTAAAAATGTACTTTCTAATAAGT 1320  
AAAATTTCTAATTTTGAATAAAACATTAAATTTTACTGAA 1360  
A 1361

FIG. 22B

hsFATP6 protein sequence

ACVLKKKFSASQFWSDCCKYDVIVFQYIGELCRYLCKQSKREGEKDHKVR 50  
LAINGIRSDWREFLDRFGNLKVCHLYAATESLSFMNYTGRIGATGRT 100  
NLFYKLLSTFDLLIKYDFQKDEPMRNEQGWFMRKRRPCELLSRVNAKNPF 150  
FGYAGPYKHKKDKLLCDVFKKEDVYINTGDLIVQDQNLFLYFWDRTGDTF 200  
RWKGENVATTEVADVIGMLDFTIQEANVYGVAISGYEGRAGMASITLKENT 250  
SLDLEKVVEQVVFELPAYACPRFLRIQEKMEATGTFKLLKHOLVEDGFNP 300  
LKISEPLVFMDNLKKSIVLLIRELYDQIMLGELKL 335

FIG. 23

mtFATP DNA sequence

TAGTCGATAACGTCAAGCAAGCTCTGCGGGCGCTGCGTACC 40  
TTCCCTCAGGTTGGTCCCAAGCAATTCCACATTTCCGCAA 80  
CCCAATCCAGGGCTTACGTGTCCGATTACTACGGCGGGCGCA 120  
CACACAACGGTCAAGGCTGATCGAAGCTGGCAACTCGGATGC 160  
CGCGAGTGTTCGGCGCAACGCGGGTCAATTGTGCGGTGGGGC 200  
AATCAACGGGCTGCTGGGCGCGCGCAATTCCAGGGCTGCG 240  
ATCGGCACGGTGTTCAGCAACGCGGGCGCTGCGTACGGTGC 280  
AACCAGTCTTCCGCAAAATTCCGCGATCAGCAGCTGACCTA 320  
CCGCGAAGCTAACGCTACCGCCCAACCGGTACGGCGGGGTG 360

FIG. 24A

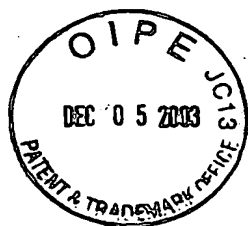




mtFATP protein sequence

msdyyggahttvrlidlatmprvldtppvivrgamtgll 40  
arpnskasigtvfgqraarygdrvfllkfgdqqltyrdana 80  
tanryaavlaargvgpgdvvgimlmspstvlamlatvkc 120  
gaiagmlnyhorgevlahslgllldakvliaesdlvsavae 160  
cgasrgrvagövl tvedverfattapatnpasasavqakd 200  
tafiyiftsgttgfpkasvmthhrwlravfgmgllrlkg 240  
sdtlyscplyhnnaltvavssvinsgatllgksfsasr 280  
fwdevianratafvyigeicryllnqpakpdrhqvrvi 320  
cnglrlpeiwdfttrfgvarvcefyaaasegnsafinifn 360  
vprttagvsqmplafveydltdgdlrdasgrvrrvpdgeo 400  
glllsrvnrllqpfögytdpvasekkvlvnafrögdöwint 440  
gövmsspögmghaafvörlgdtfrwkgenvattgveaalas 480  
dötvectvygvqiprtggragmaaitlragaeöfdöqala 520  
rtvyghlpgyalplfvrvvgslahtttfksrkvelmqay 560  
gadiedplyvlagpdegyvpöyyaeypeevslgmrpöy 597

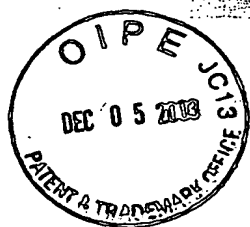
FIG. 25



# hsTATP1

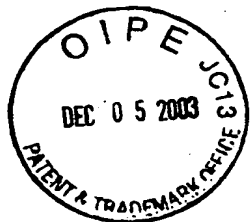
1 tgc acc cac ggc gtc cgg gac gcc aaa gca gaa gcc cgc aca gta ggc aca gcg cac cca  
61 aga agg gtc cag gag tct gca gaa aca gaa agg tcc ccg gcc tca gcc tcc tag tcc ctg  
121 cct gcc tcc tgc ctg agc ttc tgg gag act gaa ggc acg gct tgc age ttc agg atg cgg  
M R  
181 gct ccg ggt gcg ggc gcg gcc tgc gtg gtc tgc gtg ggc ctg ttg tgg ctg ctg ggg ctg  
A P G A G A A S V V S L A L L W L L G L  
241 ccg tgg acc tgg agc gcg gca gcg ggc ctg ggc tac gtg ggc agc ggc ggc tgg cgc  
P W T W S A A A L G V Y V G S G G W R  
301 ttc ctg cgc atc gtc tgc aag acc gcg agg cga gac ctc ttc ggt ctc tct gtg ctg atc  
F L R I V C K T A R R D L F G L S V L I  
361 cgc gtg cgc ctg gag ctg cgg cac cag cgt gcc ggc cac acc atc ccg cgc atc ttt  
R V R L E L R R H Q R A G H T I P R I F  
421 cag gcg gta gtg cag cga cag ccc gag cgc ctg ggc ctg gat gcc ggc acc ggc gag  
Q A V V Q R Q P E R L A L V D A G T G E  
481 tgc tgg acc ttt gcg cag ctg gac gcc tac tcc aat gcg gta gcc aac ctc ttc cgc cag  
C W T F A Q L D A Y S N A V A N L F R Q  
541 ctg ggc ttc gcg ccg ggc gac gtg gtc gcc atc ttc ctg gag ggc ccg gag ttc gtg  
L G F A P G D V V A I F L E G R P E F V  
601 ggg ctg tgg ggc ctg gcc aag gcg ggc atg gag gcc ggc ctg ctc aac gtg aac ctg  
G L W L G L A K A G M E A A L L N V N L

FIG. 26A



661 cgg cgc gag gcc ctg gcc ttc tgc ctg ggc acc tcg ggc gct aag gcc ctg atc ttt gga  
R R E P L A F C L G T S G A K A L I F G  
721 gga gaa atg gtg gcg gac gaa gac gaa gtg agc ggc cat ctg ggg aaa agt ttg atc aag  
G E M V A A V A E V S G H L G K S L I K  
781 ttc tgc tct gga gac ttg ggg gcc gag ggc atc ttg ccg gac acc cac ctg gac ccg  
F C S G D L G P E G I L P D T H L L D P  
841 ctg ctg aag gag gcc tct act gcc gcc ttg gca cag atc ccc agc aag ggc atg gac gat  
L L K E A S T A P L A Q I P S K G M D D  
901 cgt ctt ttc tac atc tac acg tcg ggg acc acc ggg ctg ccc aag gct gcc att gtc gtg  
R L F Y I Y T S G T T G L P K A A I V V  
961 cac agc agg tac tac cgc atg gca gcc ttc ggc cac ggc tac cgc atg cag gcg gct  
H S R Y Y R M A A F G H A Y R M Q A A  
1021 gac gtg ctc tat gac tgc ctg ccc ctg tac cac tcg gca gga aac atc atc ggc gtg ggg  
D V L Y D C L P L Y H S A G N I I G V G  
1081 cag tgt ctc atc tat ggg ctg aca gtc gtc ctc cgc aag aaa ttc tcg gcc agc cgc ttc  
Q C L I Y G L T V V L R K K F S A S R F  
1141 tgg gac gac tgc atc aag tac aac tgc acg gtg gtt cag tac atc ggg gag atc tgc cgc  
W D D C I K Y N C T V V Q Y I G E I C R  
1201 tac ctg ctg aag cag ccg gtg cgc gag gcg gag agg cga cac cgc gtg cgc ctg gcg gtg  
Y L L K Q P V R E A E R R H R V R L A V

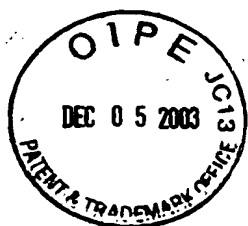
FIG. 26B



1261 ggg aac ggg ctg cgt cct gcc atc tgg gag gag ttc acg gag cgc ttc ggc gta cgc caa  
G N G L R P A I W E E F T E R F G V R Q  
1321 atc ggg gag ttc tac ggc gcc acc gag tgc aac tgc agc att gcc aac atg gac ggc aag  
I G E F Y G A T E C N C S I A N M D G K  
1381 gtc ggc tcc tgt tgt ttc aac agc cgc atc ctg ccc cac gtg tac ccc, atc cgg ctg gtg  
V G S C G F N S R I L P H V Y P I R L V  
1441 aag gtc aat gag gac aca atg gag ctg ctg cgg gat gcc cag ggc ctg tgc atc ccc tgc  
K V N E D T M E L L R D A Q G L C I P C  
1501 cag gcc ggg gag cct ggc ctg ggt gtg ggc atc aac caa cag gac cgc ctg cgc cgc  
Q A G E P G L L V G Q I N Q Q D P L R R  
1561 ttc gat ggc tat gtc agc gag gcc acc agc aag atc gcc cac agc gtc ttc agc  
F D G Y V S E S A T S K K I A H S V F S  
1621 aag ggc gac agc gcc tac ctc tca ggt gac gtg cta gtg atg gat gag ctg ggc tac atg  
K G D S A Y L S G D V L V M D E L G Y M  
1681 tac ttc cgg gac cgt agc ggg gac acc ttc cgc tgg cga ggg gag aac gtc tcc acc acc  
Y F R D R S G D T F R W R G E N V S T T  
1741 gag gtg gag ggc gtg agc cgc ctg ctg ggc cag aca gac gtg gcc gtc tat ggg gtg  
E V E G V L S R L L G Q T D V A V Y G V  
1801 gct gtt cca gga gtg gag ggt aag gca ggg atg gcg gcc gtc gca gac ccc cac agc ctg  
A V P G V E G K A G M A A V A D P H S L  
1861 ctg gac ccc aac gcg ata tac cag gag ctg cag aag gtg gca ccc tat gcc cgg ccc  
L D P N A I Y Q E L Q K V L A P Y A R P

FIG. 26C





1921 atc ttc ctg cgc ctg ccc cag gtg gac acc aca ggc acc ttc aag atc cag aag acg  
I F L R L L P Q V D T T G T F K I Q K T  
1981 agg ctg cag cga gag ggc ttt gac cca cgc cag acc tca gac cgg ctc ttc ttc ctg gac  
R L Q R R E G F D P R Q T S D R L F L D  
2041 ctg aag cag ggc cac tac ctg ccc tta aat gag gca gtc tac act cgc atc tgc tgc ggc  
L K Q G H Y L P L N E A V Y T R I C S G  
2101 gcc ttc gcc ctg tga agc tgt tcc tct act ggc cac aaa ctg tgg gcc tgg gag agg  
A F A L \*  
2161 cca gct tga gcc aga cag cgc tgc cca ggg gtg gcc ggc tag tac aca ccc acc tgg ccg  
2221 agc tgt acc tgg cac ggc cca tcc tgg act gag aaa ctg gaa cct cag agg aac ccg tgc  
2281 ctc tct gct gcc ttg gtg ccc ctg tgt ctg cct cct ctc cct gct ttt cag cct ctg tct  
2341 cct tcc atc cct gtc cct tgg cct taa ctg ttc cct ctc ttt ctt ttt ctt tct  
2401 ttc ttt ttt aag ata gag tct cac tct gct gcc cgg gct aga gtg cag tgg tgg gat  
2461 ctc ggc tca ctg caa cct ctg cct cct ggg gtt caa gtg atc ctg cca cct cag cct cct

FIG. 26D



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

2521 gag tag ctg gga tta cag gca ccc gcc acc acg tcc agc taa ttt tta tat ttt tag tag  
2581 aga cgg ggt ttc acc atg ttg gtc agg ctg gtc ttg aac tcc tga cct cag gtg atc cgc  
2641 tgg cct cgg cct ccc aga gtg ctg gga tta tag gcg tga gcc tct ggc ccg gcc ttt cct  
2701 ttt tcc tct cct ctc ctg ccg aga gtg gaa cac acg tgt cct ggg agc tgc atc ttg tgt  
2761 agg gtc cag ctg ctt ttg ggg act gca gga atc tcc cct ggg ccc tgg act cgg act  
2821 ggg gcc tcc cca cct ccc ctg cct cgg ctg tgc ctt acg gag ccc caa tcc agg cct cct gtg  
2881 gct gtt ggg ttc cag atg ctg cag ctg cat gtg act tcc aag cag gcc ctc cgc cct ccc  
2941 tgc tga atg gag gag ccg ggg gtc ccc cag gcc aac tgg aaa atc tcc cag gct agg cca  
3001 att gcc ttt tgc act tcc ccc ttc ctg tca cat ttc ccc agc ccc acc ttc ccc tcc tga  
3061 tgc cct gaa agc ttc cgg aat tga ctg tga cca ctt gga tgt cac cac tgt cag ccc ctg  
3121 cct tga tgt ccc cat tta gcc atc tcc atg gag ctg ctg gga ggc cct gaa ccc tgc  
3181 act gcg tgg ctg ccc agc cag ctg cct cct gtc ctg gga ggc ctc ctg ggt gtc ctc  
3241 atc tgg tgt gtc tac tgg agg gtc cca cag gag agg cag agg ggt cag ggg agg tct  
3301 cct gcc ggg ggt tgg cct ctc aag cct cag gag ttc tag cct gtt gaa tat acc cca cct  
3361 ggt ggg tgg ccc ctc cga tgt ccc cac tga tgg ctc tga cac cgt gtt ggt ggc gat gtc  
3421 cca gac aat ccc acc agg acg gcc cag aca tcc cta ctg gct tgg ctg gtg gct cat ctc  
3481 gaa cat cca cgc cag cct ttc tgg ggc cga ccc agg ccg cct gtc cgt ctg tcc tcc  
3541 ctc cag cag cac ccc ctg gcc cct gga gtg ggc cca tgg caa gag aca ccg tgg cgt  
3601 ctc atg tga act ttc ctg ggc act gtg gtt tta ttt cct aat tga ttt aag aaa taa acc  
3661 tga aga ccg tct ggt gaa aaa aaa agg gcc gcc gc

FIG. 26E

# hsFATP4

1 cga ccc acg cgt ccg ggc ggc cgg ggc gcg ggc gct ggc ggc ggc ggc ggc  
 61 cca tgc agg gcg cag agc cgt cta aac cct gct gag acc cgg ctc cgt ggc tcc agg ggc  
 121 ggc taa tgc ccc tca cgc tgc tgc tgc tgc tgc tgc tgc tgc tgc tgc tgc tgc  
 181 gcg cgg cgg agc cga cgc cgc ggc ggc ggc ggc ggc ggc ggc ggc ggc ggc ggc  
 241 ctg ttc tcc aag ctg ctg ggc ggc ggc ggc ggc ggc ggc ggc ggc ggc ggc ggc  
 301 L F S K L V L L K L P W T Q V G F S L L L F  
 ctg tac ttg gga tct ggc ggc tgg cgc ttc atc cgg gtc ttc atc aag acc atc agg cgc  
 361 L Y L G S G G W R F I R V F I K T I R R  
 gat atc ttt ggc ggc ctg gtc ctg aag gtc aag gca aag gtc cga cag tgc ctg cag  
 421 D I F G G L V L L K V K A K V R Q C L Q  
 gag cgg cga aca gtg ccc att ttg ttc gcc tct acc gtt cgg cgc cac ccc gac aag acg  
 481 E R R T V P I L F A S T V R R H P D K T  
 gcc ctg atc ttc gag ggc aca gat acc cac tgg acc ttc cgc cag ctg gat gag tac tca  
 541 A L I F E G T D T H W T F R Q L D E Y S  
 agc agt gta gcc aac ttc ctg cag gcc cgg ggc ctg gcc tgg ggc gat gtc gcc atc  
 601 S S V A N F L Q A R G L A S G D V A A I  
 ttc atg gag aac cgc aat gag ttc gtg ggc cta tgg ctg ggc atg gcc aag ctc ggt gtg  
 F M E N R N E F V G L W L G M A K L G V

FIG. 27A





661 gag gca gcc ctc atc aac acc aac ctg cgg gat gct ctg ctc cac tgc ctc acc acc  
E A A L I N T N L R R D A L L H C L T T  
721 tcg cgc gca cgg gcc ctt gtc ttt ggc agc gaa atg gcc tca gcc atc tgt gag gtc cat  
S R A R A L V F G S E M A S A I C E V H  
781 gcc agc ctg gac ccc tcg ctc agc ctc ttc tgc tct ggc tcc tgg gag ccc ggt gcg gtg  
A S L D P S L S L F C S G S W E P G A V  
841 cct cca agc aca gaa cac ctg gac cct ctg ctg aaa gat gct ccc aag cac ctt ccc agt  
P P S T E H L D P L L L K D A P K H L P S  
901 tgc cct gac aag gcc ttc aca gat aaa ctg ttc tac atc tac aca tcc ggc acc aca ggg  
C P D K G F T D K L F Y I Y T S G T T G  
961 ctg ccc aag gcc atc gtg ctg cac agc agc agg tat tac cgc atg gct gcc ctg gtg tac  
L P K A A I V V H S R Y Y R M A A L V Y  
1021 tat gga ttc cgc atg cgg gcc ccc aac gac atc gtc tat gac tgc ctc ccc ctc tac cac tca  
Y G F R M R P N D I V Y D C L P L Y H S  
1081 gca gga aac atc gtg gga atc ggc cag tgc ctg ctg cat ggc atg acg gtg att cgg  
A G N I V G I G Q C L L H G M T V I R  
1141 aag aag ttc tca gcc tcc cgg ttc tgg gac gat tgt atc aag tac aac tgc acg att gtg  
K K F S A S R F W D C I K Y N C T I V  
1201 cag tac att ggt gaa ctg tgc cgc tac ctc ctg aac cag cca ccg cgg gag gca gaa aac  
Q Y I G E L C R Y L L N Q P P R E A E N

FIG. 27B



1261 cag cac cag gtt cgc atg gca cta ggc aat ggc ctc cgc cag tcc atc tgg acc aac ttt  
Q H Q V R M A L G N G L R Q S I W T N F  
1321 tcc agc cgc ttc cac ata ccc cag gtg gct gag ttc tac ggg gcc aca gag tgc aac tgt  
S S R F H I P Q V A E F Y G A T E C N C  
1381 agc ctg ggc aac ttc gac agc cag gtg ggc gct tgt ggt ttc aat agc cgc atc ctg tcc  
S L G N F D S Q V G A C G F N S R I L S  
1441 ttc gtg tac ccc atc cgg ttg gta cgt gtc aac gag gac acc atg gag ctg atc cgg ggg  
F V Y P I R L V R V N E D T M E L I R G  
1501 ccc gac ggc gtc tgc att ccc tgc cag cca ggt gag ccg ggc cag ctg gtg gcc cgc atc  
P D G V C I P C Q P G E P G Q L V G R I  
1561 atc cag aaa gac ccc ctg cgc cgc ttc gat ggc tac ctc aac cag ggc gcc aac aac aag  
I Q K D P L R R F D G Y L N Q G A N N K  
1621. aag att gcc aag gat gtc ttc aag aag ggc gac cag gcc tac ctt act ggt gat gtg ctg  
K I A K D V F K K G D Q A Y L T G D V L  
1681 gtg atg gac gag ctg ggc tac ctg tac ttc cga gac cgc act ggg gac acg ttc cgc tgg  
V M D E L G Y L Y F R D R T G D T F R W  
1741 aaa ggt gag aac gtg tcc acc acc gag gtg gaa ggc aca ctc agc cgc ctg ctg gac atg  
K G E N V S T T E V E G T L S R L L D M  
1801 gct gac gtg gcc gtg tat ggt gtc gag gtg cca acc gag ggc gcc gga atg gct  
A D V A V Y G V E V P G T E G R A G M A  
1861 gct gtg gcc agc ccc act ggc aac tgt gac ctg gag cgc ttt gct cag gtc ttg gag aag  
A V A S P T G N C D L E R F A Q V L E K

FIG. 27C



Appl'n No.: 09/405,504

Title: METHODS OF IDENTIFYING...

Inventors: Andreas Stahl, *et al.*

Replacement Sheet

1921 gaa ctg ccc ctg tat gcg cgc ccc atc ttc ctg cgc ctg cct gag ctg cac aaa aca  
E L P L Y A R P I F L L R L L P E L H K T

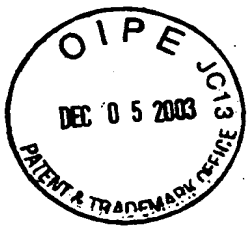
1981 gga acc tac aag ttc cag aag aca gag cta cgg aag gag ggc ttt gac ccg gct att gtg  
G T Y K F Q K T E L R K E G F D P A I V

2041 aaa gac ccg ctg ttc tat. gat gcc cag aag ggc cgc tac gtc ccg ctg gac caa gag  
K D P L F Y L D A Q K G R Y V P L D Q E

2101 gcc tac agc cgc atc cag gca ggc gag gag aag ctg tga ttc ccc cca tcc ctg tga ggg  
A Y S R I Q A G E E K L \*

2161 ccg gcg gat gct gga tcc gga gcc cca ggt tcc gcc cca gag cgg tcc tgg aca agg cca  
2221 gac caa agc aag cag ggc ctg gca cct cca tcc tga ggt gct gcc cct cca tcc aaa act  
2281 gcc aag tga ctg att gcc ttc cca acc ctt cca gag gct ttc tgt gaa agt ctg atg tcc  
2341 aag ttc cgt ctt ctg ggc tgg gca gcc cct ctg gtt ccc agg ctg aga ctg acg ggt ttt  
2401 ctg agg atg atg tct tgg gtg agg gta ggg aga gga caa ggc gtc acc gag ccc ttc cca  
2461 gag agc agg gag ctt ata aat gga acc aga gca gaa gtc ccc aga ctg acc gag tca aca  
2521 gag tgg gca ggg aca gtg gta gca tcc atc tgg tgg cca aag aga atc gta gcc cca gag  
2581 ctg ccc aag ttc act ggg ctg ccc cac ccc cag gag ggg agg aga gga cct gac atc  
2641 tgt agg tgg ccc ctg atg ccc cat cta cag gag gtc agg acc acg ccc ctg gcc tct  
2701 ccc cac tcc ccc atc ctg cct ggg tgg ctg cct gat tat ccc tca ggc agg gcc tct  
2761 cag tcc ttg tgg gtc tgt gtc acc tcc atc tca gtc ttg gcc tgg cta tga ggg gag gag  
2821 gaa tgg gag agg ggg ctg agg ggc caa taa act ctg cct tga gtc ctg cta aaa aaa  
2881 aaa aaa aaa aaa aaa aaa ggg cgg ccg c

FIG. 27D



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

Protein sequence 646 a.a. MRAPGAGAASVV... VYTRICSGAFAL

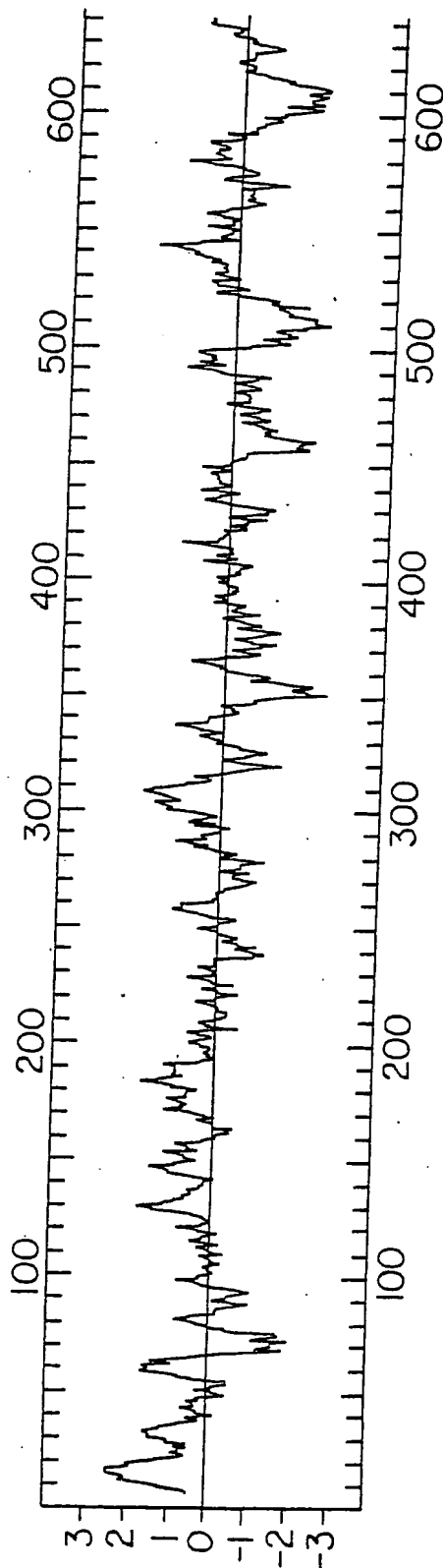
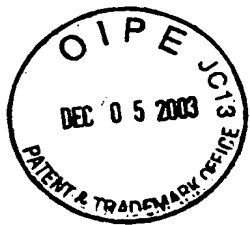


FIG. 28A



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

Protein Sequence 646 a.a. MRAPGAGAASVV....VYTRICSGAFAL  
646 Amino Acids MW: 71062 Dalton

		<u>n</u>	<u>n%</u>	<u>MW</u>	<u>MW%</u>
A ala	Alanine	64	9.9	4546	6.4
C cys	cysteine	15	2.3	1545	2.2
D asp	aspartic acid	30	4.6	3450	4.9
E glu	glutamic acid	31	4.8	4000	5.6
F phe	phenylalanine	29	4.5	4264	6.0
G gly	glycine	63	9.8	3592	5.1
H his	histidine	13	2.0	1781	2.5
I ile	isoleucine	29	4.5	3279	4.6
K lys	lysine	22	3.4	2818	4.0
L leu	leucine	77	11.9	8707	12.3
M met	methionine	11	1.7	1441	2.0
N asn	asparagine	15	2.3	1710	2.4
P pro	proline	29	4.5	2814	4.0
Q gln	glutamine	25	3.9	3201	4.5
R arg	arginine	49	7.6	7648	10.8
S ser	serine	33	5.1	2872	4.0
T thr	threonine	27	4.2	2728	3.8
V val	valine	51	7.9	5052	7.1
W trp	tryptophan	9	1.4	1674	2.4
X ukw	unknown	--	--		
Y tyr	tyrosine	24	3.7	3913	5.5
Z ---	STOP				

FIG. 28B





Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

hsFATP1 full-length protein

Hydrophilicity Plot - Kyte-Doolittle

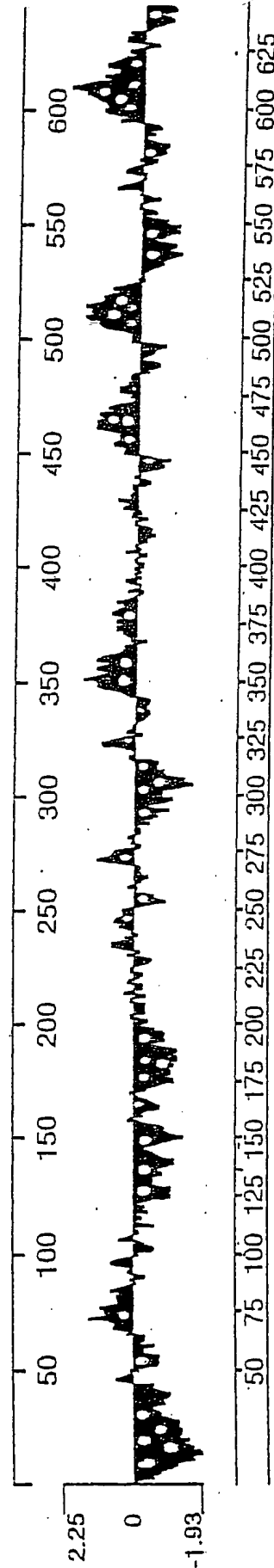
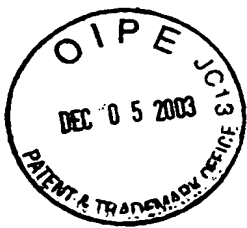


FIG. 28C



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

hsFATP4.pep -> KD Hydrophobicity <11/1>

Protein sequence 643 a.a. MLLGASLVGVLL ... AYSRIQAGEEKL

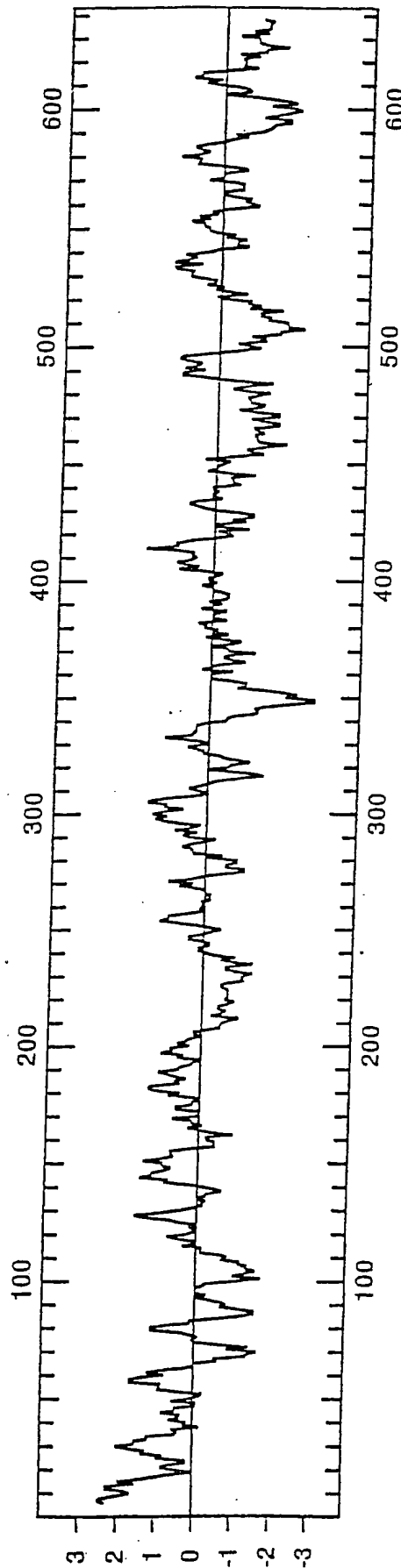


FIG. 29A



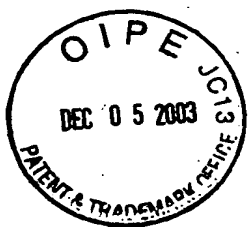
Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

hs FATP4. pep-> A.A. Usage

Protein Sequence 643 a.a. MLLGASLVGVLL...AYSRIQAGEEKL  
643 Amino Acids MW: 72018 Dalton

		<u>n</u>	<u>n%</u>	<u>MW</u>	<u>MW%</u>
A ala	alanine	46	7.2	3267	4.5
C cys	cysteine	16	2.5	1648	2.3
D asp	aspartic acid	33	5.1	3795	5.3
E glu	glutamic acid	33	5.1	4258	5.9
F phe	phenylalanine	34	5.3	5000	6.9
G gly	glycine	54	8.4	3079	4.3
H his	histidine	12	1.9	1644	2.3
I ile	isoleucine	30	4.7	3392	4.7
K lys	lysine	31	4.8	3970	5.5
L leu	leucine	76	11.8	8594	11.9
M met	methionine	12	1.9	1572	2.2
N asn	asparagine	21	3.3	2394	3.3
P pro	proline	31	4.8	3008	4.2
Q gln	glutamine	23	3.6	2945	4.1
R arg	arginine	45	7.0	7024	9.8
S ser	serine	35	5.4	3046	4.2
T thr	threonine	32	5.0	3233	4.5
V val	valine	46	7.2	4557	6.3
W trp	tryptophan	8	1.2	1488	2.1
X ukw	unknown	--	--		
Y tyr	tyrosine	25	3.9	4076	5.7
Z ---	STOP				

FIG. 29B



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

hsFATP4 full length protein

**Fig. 29C** Hydrophilicity Plot - Kyte - Doolittle

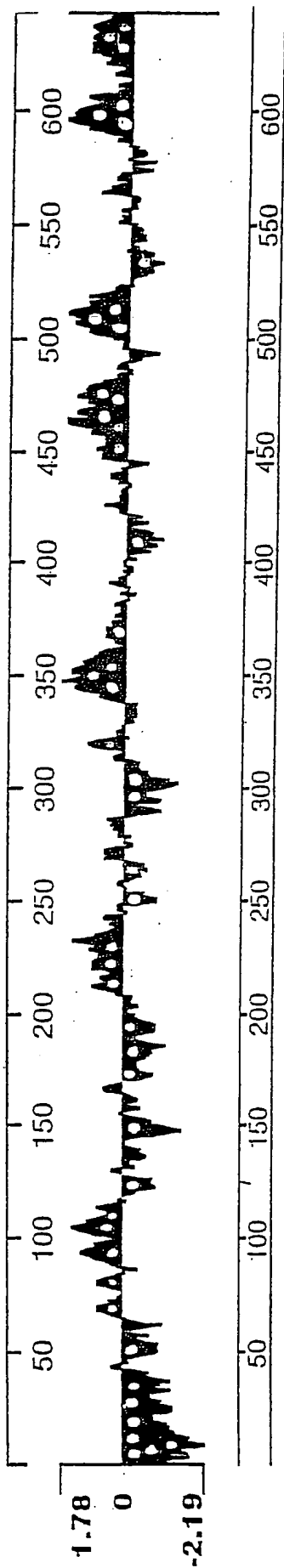


FIG. 29C



1 A T G C G G G C T C C G G G T G C G G G hFATP1con.seq ORF  
1 A T G C G G G C T C C T G G A G C A G G mFATP1.seq ORF (from genomic)

21 C G C G G C C T C G G T G G T C T C G C hFATP1con.seq ORF  
21 A A C A G C C T C T G T G G C C T C A C mFATP1.seq ORF (from genomic)

41 T G G C G C T G T T G T G G C T G C T G hFATP1con.seq ORF  
41 T G G C G C T G C T T T G G T T T C T G mFATP1.seq ORF (from genomic)

61 G G G C T G C C G T G G A C C T G G A G hFATP1con.seq ORF  
61 G G A C T T C C G T G G A C C T G G A G mFATP1.seq ORF (from genomic)

81 C G C G G C A G C G G C G C T C G G C G hFATP1con.seq ORF  
81 C G C G G C G G C G G C G T T C T G T G mFATP1.seq ORF (from genomic)

101 T G T A C G T G G G C A G C G G C G G C hFATP1con.seq ORF  
101 T G T A C G T G G G T G G C G G C G G C mFATP1.seq ORF (from genomic)

121 T G G C G C T T C C T G C G C A T C G T hFATP1con.seq ORF  
121 T G G C G C T T T C T G C G T A T C G T mFATP1.seq ORF (from genomic)

141 C T G C A A G A C C G C G A G G C G A G hFATP1con.seq ORF  
141 C T G C A A G A C G G C G A G G C G A G mFATP1.seq ORF (from genomic)

161 A C C T C T T C G G T C T C T C T G T G hFATP1con.seq ORF  
161 A C C T C T T T G G C C T C T C T G T T mFATP1.seq ORF (from genomic)

181 C T G A T C C G C G T G C G C C T G G A hFATP1con.seq ORF  
181 C T G A T T C G T G T T C G G C T A G A mFATP1.seq ORF (from genomic)

201 G C T G C G G C G G C A C C A G C G T G hFATP1con.seq ORF  
201 G C T G C G A C G A C A C C G G C G A G mFATP1.seq ORF (from genomic)

221 C C G G C C A C A C C A T C C C G C G C hFATP1con.seq ORF  
221 C A G G A G A C A C G A T C C C G T G C mFATP1.seq ORF (from genomic)

241 A T C T T T C A G G C G G T A G T G C A hFATP1con.seq ORF  
241 A T C T T C C A G G C T G T G G C C C G mFATP1.seq ORF (from genomic)

261 G C G A C A G C C C G A G C G C C T G G hFATP1con.seq ORF  
261 G C G A C A A C C A G A G C G C C T G G mFATP1.seq ORF (from genomic)

281 C G C T G G T G G A T G C C G G G A C C hFATP1con.seq ORF  
281 C A C T G G T G G A C G C C A G T A G T mFATP1.seq ORF (from genomic)

301 G G C G A G T G C T G G A C C T T T G C hFATP1con.seq ORF  
301 G G T A T A T G C T G G A C C T T C G C mFATP1.seq ORF (from genomic)

321 G C A G C T G G A C G C C T A C T C C A hFATP1con.seq ORF  
321 A C A G C T G G A C A C C T A C T C C A mFATP1.seq ORF (from genomic)

341 A T G C G G T A G C C A A C C T C T T C hFATP1con.seq ORF  
341 A T G C T G T A G C C A A C C T G T T C mFATP1.seq ORF (from genomic)

FIG. 30A



361 C G C C A G C T G G G C T T C G C G C C hFATP1con.seq ORF  
361 C G C C A G C T G G G C T T T G C A C C mFATP1.seq ORF (from genomic)

381 G G G C G A C G T G G T G G C C A T C T hFATP1con.seq ORF  
381 A G G C G A T G T G G T G G C T G T G T mFATP1.seq ORF (from genomic)

401 T C C T G G A G G G C C G G C C G G A G hFATP1con.seq ORF  
401 T C C T G G A G G G C C G G C C G G A G mFATP1.seq ORF (from genomic)

421 T T C G T G G G G C T G T G G C T G G G hFATP1con.seq ORF  
421 T T C G T G G G G A C T G T G G C T G G G mFATP1.seq ORF (from genomic)

441 C C T G G C C A A G G C G G G C A T G G hFATP1con.seq ORF  
441 C C T G G C C A A G G C C G G T G T G G mFATP1.seq ORF (from genomic)

461 A G G C C G C G C T G C T C A A C G T G hFATP1con.seq ORF  
461 T G G C T G C T C T T C T C A A T G T C mFATP1.seq ORF (from genomic)

481 A A C C T G C G G C G C G A G C C C C T hFATP1con.seq ORF  
481 A A C C T G A G G C G G G A G C C C C T mFATP1.seq ORF (from genomic)

501 G G C C T T C T G C C T G G G C A C C T hFATP1con.seq ORF  
501 G G C C T T C T G C C T G G G C A C A T mFATP1.seq ORF (from genomic)

521 C G G G C G C T A A G G C C C T G A T C hFATP1con.seq ORF  
521 C A G C T G C C A A G G C C C T C A T T mFATP1.seq ORF (from genomic)

541 T T T G G A G G A G A A A T G G T G G C hFATP1con.seq ORF  
541 T A T G G C G G G G A G A T G G C A G C mFATP1.seq ORF (from genomic)

561 G G C G G T G G C C G A A G T G A G C G hFATP1con.seq ORF  
561 G G C G G T G G C G G A G G T G A G C G mFATP1.seq ORF (from genomic)

581 G G C A T C T G G G G A A A A G T T T G hFATP1con.seq ORF  
581 A G C A G C T G G G G A A G A G C C T C mFATP1.seq ORF (from genomic)

601 A T C A A G T T C T G C T C T G G A G A hFATP1con.seq ORF  
601 C T C A A G T T C T G C T C T G G A G A mFATP1.seq ORF (from genomic)

621 C T T G G G G C C C G A G G G C A T C T hFATP1con.seq ORF  
621 T C T G G G G C C T G A G A G C A T C C mFATP1.seq ORF (from genomic)

641 T G C C G G A C A C C C A C C T C C T G hFATP1con.seq ORF  
641 T G C C T G A C A C G C A G C T C C T G mFATP1.seq ORF (from genomic)

661 G A C C C G C T G C T G A A G G A G G C hFATP1con.seq ORF  
661 G A C C C C A T G C T T G C T G A G G C mFATP1.seq ORF (from genomic)

681 C T C T A C T G C C C C T T G G C A C hFATP1con.seq ORF  
681 G C C C A C C A C C C C T T G G C A C mFATP1.seq ORF (from genomic)

701 A G A T C C C C A G C A A G G G C A T G hFATP1con.seq ORF  
701 A A G C C C C A G G C A A G G G C A T G mFATP1.seq ORF (from genomic)

FIG. 30B



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

721 G A C G A T C G T C T T T T C T A C A T hFATP1con.seq ORF  
721 G A T G A T C G G C T G T T T T A C A T mFATP1.seq ORF (from genomic)

741 C T A C A C G T C G G G G A C C A C C G hFATP1con.seq ORF  
741 C T A T A C T T C T G G G A C C A C C G mFATP1.seq ORF (from genomic)

761 G G C T G C C C A A G G C T G C C A T T hFATP1con.seq ORF  
761 G G C T T C C T A A G G C T G C C A T T mFATP1.seq ORF (from genomic)

781 G T C G T G C A C A G C A G G T A C T A hFATP1con.seq ORF  
781 G T G G T G C A C A G C A G G T A C T A mFATP1.seq ORF (from genomic)

801 C C G C A T G G C A G C C T T C G G C C hFATP1con.seq ORF  
801 C C G C A T T G C T G C C T T T G G C C mFATP1.seq ORF (from genomic)

821 A C C A C G C C T A C C G C A T G C A G hFATP1con.seq ORF  
821 A C C A T T C C T A C A G C A T G C G T mFATP1.seq ORF (from genomic)

841 G C G G C T G A C G T G C T C T A T G A hFATP1con.seq ORF  
841 G C C G C C G A T G T G C T C T A T G A mFATP1.seq ORF (from genomic)

861 C T G C C T G C C C C T G T A C C A C T hFATP1con.seq ORF  
861 C T G C C T G C C A C T C T A C C A C T mFATP1.seq ORF (from genomic)

881 C G G C A G G A A A C A T C A T C G G C hFATP1con.seq ORF  
881 C T G C A G G G A A A C A T C A T G G G T mFATP1.seq ORF (from genomic)

901 G T G G G G C A G T G T C T C A T C T A hFATP1con.seq ORF  
901 G T G G G G C A G T G C G T C A T C T A mFATP1.seq ORF (from genomic)

921 T G G G C T G A C A G T C G T C C T C C hFATP1con.seq ORF  
921 C G G G T T G A C G G T G G T A C T G C mFATP1.seq ORF (from genomic)

941 G C A A G A A A T T C T C G G C C A G C hFATP1con.seq ORF  
941 G C A A G A A G T T C T C C G C C A G C mFATP1.seq ORF (from genomic)

961 C G C T T C T G G G A C G A C T G C A T hFATP1con.seq ORF  
961 C G C T T C T G G G A T G A C T G T G T mFATP1.seq ORF (from genomic)

981 C A A G T A C A A C T G C A C G G T G G hFATP1con.seq ORF  
981 C A A G T A C A A T T G C A C G G T A G mFATP1.seq ORF (from genomic)

1001 T T C A G T A C A T C G G G G A G A T C hFATP1con.seq ORF  
1001 T G C A G T A C A T A G G T G A A A T C mFATP1.seq ORF (from genomic)

1021 T G C C G C T A C C T G C T G A A G C A hFATP1con.seq ORF  
1021 T G C C G C T A C C T G C T G A G G C A mFATP1.seq ORF (from genomic)

1041 G C C G G T G C G C G A G G C G G A G A hFATP1con.seq ORF  
1041 G C C G G T T C G C G A C G T G G A G C mFATP1.seq ORF (from genomic)

1061 G G C G A C A C C G C G T G C G C C T G hFATP1con.seq ORF  
1061 A G C G A C A C C G C G T G C G C C T G mFATP1.seq ORF (from genomic)

FIG. 30C



1081 G C G G T G G G G G A A C G G G C T G C G hFATP1con.seq ORF  
1081 G C C G T G G G G T A A T G G G C T G C G mFATP1.seq ORF (from genomic)

1101 T C C T G C C A T C T G G G A G G A G T hFATP1con.seq ORF  
1101 G C C A G C C A T C T G G G A G G A G T mFATP1.seq ORF (from genomic)

1121 T C A C G G A G C G C T T C G G C G T A hFATP1con.seq ORF  
1121 T C A C G C A G C G C T T C G G T G T G mFATP1.seq ORF (from genomic)

1141 C G C C A A A T C G G G G A G T T C T A hFATP1con.seq ORF  
1141 C C A C A G A T C G G C G A G T T C T A mFATP1.seq ORF (from genomic)

1161 C G G C G C C A C C G A G T G C A A C T hFATP1con.seq ORF  
1161 C G G C G C T A C C G A G T G C A A C T mFATP1.seq ORF (from genomic)

1181 G C A G C A T T G C C A A C A T G G A C hFATP1con.seq ORF  
1181 G C A G C A T T G C C A A C A T G G A C mFATP1.seq ORF (from genomic)

1201 G G C A A G G T C G G C T C C T G T G G hFATP1con.seq ORF  
1201 G G C A A G G T C G G C T C C T G C G G mFATP1.seq ORF (from genomic)

1221 T T T C A A C A G C C G C A T C C T G C hFATP1con.seq ORF  
1221 C T T C A A C A G C C G T A T C C T C A mFATP1.seq ORF (from genomic)

1241 C C C A C G T G T A C C C C A T C C G G hFATP1con.seq ORF  
1241 C G C A T G T G T A C C C C A T C C G T mFATP1.seq ORF (from genomic)

1261 C T G G T G A A G G T C A A T G A G G A hFATP1con.seq ORF  
1261 C T G G T C A A G G T C A A T G A G G A mFATP1.seq ORF (from genomic)

1281 C A C A A T G G A G C T G C T G C G G G hFATP1con.seq ORF  
1281 C A C G A T G G A G C C A C T G C G G G mFATP1.seq ORF (from genomic)

1301 A T G C C C A G G G C C T C T G C A T C hFATP1con.seq ORF  
1301 A C T C C G A G G G C C T C T G C A T C mFATP1.seq ORF (from genomic)

1321 C C C T G C C A G G C C G G G G A G C C hFATP1con.seq ORF  
1321 C C G T G C C A G C C C G G G G A A C C mFATP1.seq ORF (from genomic)

1341 T G G C C T C C T T G T G G G T C A G A hFATP1con.seq ORF  
1341 C G G C C T T C T C G T G G G C C A G A mFATP1.seq ORF (from genomic)

1361 T C A A C C A A C A G G A C C C G C T G hFATP1con.seq ORF  
1361 T C A A C C A G C A G G A C C C T C T G mFATP1.seq ORF (from genomic)

1381 C G C C G C T T C G A T G G C T A T G T hFATP1con.seq ORF  
1381 C G G C G T T T C G A T G G T T A T G T mFATP1.seq ORF (from genomic)

1401 C A G C G A G A G C G C C A C C A G C A hFATP1con.seq ORF  
1401 T A G T G A C A G T G C C A C C A A C A mFATP1.seq ORF (from genomic)

1421 A G A A G A T C G C C C A C A G C G T C hFATP1con.seq ORF  
1421 A G A A G A T T G C C C A C A G C G T T mFATP1.seq ORF (from genomic)

FIG. 30D





1441 T T C A G C A A G G G C G A C A G C G C hFATP1con.seq ORF  
1441 T T C C G A A A G G G C G A T A G C G C mFATP1.seq ORF (from genomic)

1461 C T A C C T C T C A G G T G A C G T G C hFATP1con.seq ORF  
1461 C T A C C T C T C A G G T G A C G T G C mFATP1.seq ORF (from genomic)

1481 T A G T G A T G G A T G A G C T G G G C hFATP1con.seq ORF  
1481 T A G T G A T G G A C G A G C T G G G C mFATP1.seq ORF (from genomic)

1501 T A C A T G T A C T T C C G G G A C C G hFATP1con.seq ORF  
1501 T A C A T G T A T T T C C G T G A C C G mFATP1.seq ORF (from genomic)

1521 T A G C G G G G A C A C C T T C C G C T hFATP1con.seq ORF  
1521 C A G C G G G G A C A C C T T C C G C T mFATP1.seq ORF (from genomic)

1541 G G C G A G G G G A G A A C G T C T C C hFATP1con.seq ORF  
1541 G G C G C G G G G A G A A C G T G T C C mFATP1.seq ORF (from genomic)

1561 A C C A C C G A G G T G G A G G G C G T hFATP1con.seq ORF  
1561 A C C A C G G A G G T G G A A G C C G T mFATP1.seq ORF (from genomic)

1581 G C T G A G C C G C C T G C T G G G C C hFATP1con.seq ORF  
1581 G C T G A G C C G C C T A C T G G G C C mFATP1.seq ORF (from genomic)

1601 A G A C A G A C G T G G C C G T C T A T hFATP1con.seq ORF  
1601 A G A C G G A C G T G G C T G T G T A T mFATP1.seq ORF (from genomic)

1621 G G G G T G G C T G T T C C A G G A G T hFATP1con.seq ORF  
1621 G G G G T G G C T G T G C C A G G A G T mFATP1.seq ORF (from genomic)

1641 G G A G G G T A A G G C A G G G A T G G hFATP1con.seq ORF  
1641 G G A G G G G A A A G C T G G C A T G G mFATP1.seq ORF (from genomic)

1661 C G G C C G T C G C A G A C C C C A C hFATP1con.seq ORF  
1661 C A G C C A T C G C A G A T C C C C A C mFATP1.seq ORF (from genomic)

1681 A G C C T G C T G G A C C C C A A C G C hFATP1con.seq ORF  
1681 A G C C A G T T G G A C C C C T A A C T C mFATP1.seq ORF (from genomic)

1701 G A T A T A C C A G G A G C T G C A G A hFATP1con.seq ORF  
1701 A A T G T A C C A G G A A T T A C A G A mFATP1.seq ORF (from genomic)

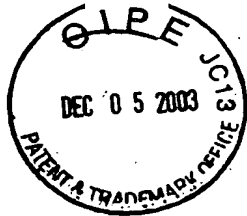
1721 A G G T G C T G G C A C C C T A T G C C hFATP1con.seq ORF  
1721 A G G T T C T T G C A T C C T A T G C T mFATP1.seq ORF (from genomic)

1741 C G G C C C A T C T T C C T G C G C C T hFATP1con.seq ORF  
1741 C G G C C C A T C T T C C T G C G C T C T mFATP1.seq ORF (from genomic)

1761 C C T G C C C C A G G T G G A C A C C A hFATP1con.seq ORF  
1761 T C T G C C C C A G G T G G A T A C C A mFATP1.seq ORF (from genomic)

1781 C A G G C A C C T T C A A G A T C C A G hFATP1con.seq ORF  
1781 C A G G C A C C T T C A A G A T C C A G mFATP1.seq ORF (from genomic)

FIG. 30E



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

1801 A A G A C G A G G C T G C A G C G A G A hFATP1con.seq ORF  
1801 A A G A C C C G G C T G C A G C G T G A mFATP1.seq ORF (from genomic)

1821 G G G C T T T G A C C C A C G C C A G A hFATP1con.seq ORF  
1821 A G G C T T T G A C C C C C G T C A G A mFATP1.seq ORF (from genomic)

1841 C C T C A G A C C G G C T C T T C T T C hFATP1con.seq ORF  
1841 C C T C A G A C A G G C T C T T C T T T mFATP1.seq ORF (from genomic)

1861 C T G G A C C T G A A G C A G G G C C A hFATP1con.seq ORF  
1861 C T A G A C C T G A A G C A G G G A C G mFATP1.seq ORF (from genomic)

1881 C T A C C T G C C C T T A A A T G A G G hFATP1con.seq ORF  
1881 C T A T G T A C C C C T G G A T G A G A mFATP1.seq ORF (from genomic)

1901 C A G T C T A C A C T C G C A T C T G C hFATP1con.seq ORF  
1901 G A G T C C A T G C C C G C A T T T G T mFATP1.seq ORF (from genomic)

1921 T C G G G C G C C T T C G C C C T C T G hFATP1con.seq ORF  
1921 G C A G G C G A C T T C T C A C T C mFATP1.seq ORF (from genomic)

1941 A hFATP1con.seq ORF  
1938 mFATP1.seq ORF (from genomic)

Decoration 'Decoration #2': Box residues that match the consensus  
named 'Consensus #1' exactly.

FIG. 30F



Appl'n No.:  
Title:  
Inventors:

09/405,504  
METHODS OF IDENTIFYING...  
Andreas Stahl, *et al.*  
Replacement Sheet

1	C	T	G	T	C	T	C	C	A	A	G	C	T	G	T	G	A	A	C	T	G	C	C	C	C	C	C	C	C	hsFATP4			
1	C	T	T	G	G	G	T	C	C	A	A	G	C	T	A	G	T	G	C	T	G	A	A	G	C	T	G	C	C	C	mmFATP4		
31	T	G	G	A	C	C	C	A	G	G	T	G	G	G	A	T	T	C	C	C	C	T	G	T	T	G	T	T	C	T	C	hsFATP4	
31	T	G	G	A	C	C	C	A	G	G	T	G	G	G	A	T	T	C	C	C	C	T	G	T	T	G	T	T	C	T	C	mmFATP4	
61	C	T	C	T	A	C	T	T	G	G	G	A	T	C	T	G	G	C	G	G	C	T	G	G	C	C	T	T	C	T	C	hsFATP4	
61	C	T	G	T	A	C	T	T	G	G	G	G	T	C	T	G	G	T	G	G	C	T	G	G	C	C	T	T	C	T	C	mmFATP4	
91	A	T	C	C	G	G	G	T	C	T	T	C	A	T	C	A	A	G	A	C	C	A	T	C	A	G	G	C	G	C	C	hsFATP4	
91	A	T	C	C	G	G	G	T	C	T	T	C	A	T	C	A	A	G	A	C	G	G	T	C	A	G	G	A	G	A	C	mmFATP4	
121	G	A	T	A	T	C	T	T	T	G	G	C	G	G	C	C	T	G	G	T	C	C	C	T	G	A	A	G	C	C	C	hsFATP4	
121	G	A	T	A	T	C	T	T	T	G	G	T	G	G	C	A	T	G	G	T	C	C	C	T	G	A	A	G	C	C	C	mmFATP4	
151	G	T	G	A	A	G	C	C	A	A	G	G	T	G	C	G	A	C	A	G	T	G	C	C	A	G	C	C	C	C	C	hsFATP4	
151	G	T	G	A	A	G	A	C	C	A	A	G	G	T	G	C	G	A	C	G	T	A	C	C	T	T	C	A	G	C	C	mmFATP4	
181	G	A	G	C	G	G	C	G	A	C	A	G	T	G	C	C	C	A	T	T	T	T	T	T	G	C	C	C	C	C	C	hsFATP4	
181	G	A	G	C	G	G	A	A	G	A	C	G	G	T	G	C	C	C	C	T	G	C	T	T	T	G	C	T	T	T	G	C	mmFATP4

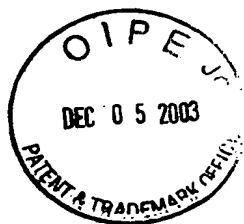
FIG. 31A



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

211	T	C	T	A	C	C	G	T	T	C	G	G	C	C	A	C	C	C	C	G	G	A	C	A	G	A	C	G	hsFATP4		
211	T	C	A	A	T	G	G	T	A	C	A	G	C	C	A	C	C	C	G	G	A	C	A	A	G	A	C	A	mmFATP4		
241	G	C	C	C	T	G	A	T	C	T	T	C	G	A	G	G	C	A	C	A	G	A	T	A	C	C	A	C	hsFATP4		
241	G	C	C	C	T	G	A	T	T	T	T	C	G	A	G	G	C	A	C	A	G	A	C	A	C	T	C	A	C	mmFATP4	
271	T	G	G	A	C	C	T	T	C	C	G	C	C	A	G	C	T	G	G	A	T	G	A	T	A	C	T	C	A	hsFATP4	
271	T	G	G	A	C	C	T	T	C	C	G	C	C	A	G	C	T	G	G	A	T	G	A	T	A	C	T	C	C	mmFATP4	
301	A	G	C	A	G	T	G	T	A	G	C	C	A	A	C	T	T	C	C	T	G	C	A	G	G	C	C	G	G	hsFATP4	
301	A	G	T	A	G	T	G	T	G	G	C	C	A	A	C	T	T	C	C	T	G	C	A	G	G	C	C	G	G	mmFATP4	
331	G	G	C	C	T	G	G	C	C	T	C	G	G	C	G	A	T	G	T	G	G	C	T	G	C	C	A	T	C	hsFATP4	
331	G	G	C	C	T	G	G	C	C	T	C	A	G	G	C	A	A	T	G	T	A	G	T	T	G	C	C	C	T	C	mmFATP4
361	T	T	C	A	T	G	G	A	G	A	A	C	C	G	C	A	A	T	G	A	G	T	T	C	G	T	G	G	G	C	hsFATP4
361	T	T	C	A	T	G	G	A	A	A	A	C	C	G	C	A	A	T	G	A	G	T	T	T	G	T	G	G	G	T	mmFATP4
391	C	T	A	T	G	G	C	T	G	G	G	C	A	T	G	G	C	C	A	A	G	C	T	C	G	G	T	G	T	G	hsFATP4
391	C	T	G	T	G	G	C	T	A	G	G	C	A	T	G	G	C	C	A	A	G	C	T	C	G	G	C	C	G	T	mmFATP4

FIG. 31B



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

421	G A G G C	A G C	C C T C A T C A A C A C C A A C C T	G C G G	hsFATP4
421	G A G G C	G G C	T C T C A T C A A C A C C A A C C T	T A G G	mmFATP4
451	C G G G A	T G C	T C T G C T C C A C T G C C T C A C C	C A C C	hsFATP4
451	C G G G A	T G C	C C T G C C C A C T G C C T T G A C A C C	C A C C	mmFATP4
481	T C G C G C	G C A C G	G G C C C T T G T T G G C A G C	C	hsFATP4
481	T C A A G	G C A C G	A G C T C T C A T C T T T G G C A G T	C	mmFATP4
511	G A A	A T G G C C C T C A G C	C A T C T G T G A G T C C C A T		hsFATP4
511	G A G	A T G G C C C T C A G C	T A T C T G T G A G A T C C C A T		mmFATP4
541	G C C	A G C C T G G A	C C C C T C G C T C A G C C T C T C		hsFATP4
541	G C T	A G C C T G G A	G C C C A C T C A G C C T C T C		mmFATP4
571	T G C T C C	T G G C	T C C C T G G G A G C C C C G T G	G T G	hsFATP4
571	T G C T C C	T G G C	A T C C C T G G G A G C C C C A G T G	A G T G	mmFATP4
601	C C T C C A	A G C A C A G A	A C A C C T G G A C C C C T C T G		hsFATP4
601	C C C G T C	A G C A C A G A	C A T C C T G G A C C C C T C T T		mmFATP4

FIG. 31C



631	C T G A A A G A T G C C C C A A G C A C C T T C C C A G T	hsFATP4
631	C T G G A A G A T G C C C C A A G C A C C T G C C C A G T	mmFATP4
661	T G C C C C T G A C A A G G G C T T C A C A G A T A A C T G	hsFATP4
661	C A C C C C A G A C A A G G G T T T A C A G A T A A G C T C	mmFATP4
691	T T C T A C A T C T A C A C A T C C G G C A C C A C A G G G	hsFATP4
691	T T C T A C A T C T A C A C A T C G G G C A C C A C G G G	mmFATP4
721	C T G C C C A A G G C C G C C A T C G T G G T G C A C A G C	hsFATP4
721	C T A C C C A A A G C T G C C A T C G T G G T G C A C A G C	mmFATP4
751	A G G T A T A C C G C A T G G G C T G C C C T G G T G T A C	hsFATP4
751	A G G T A T A T C G T A T G G C T T C C C T G G T G T A C	mmFATP4
781	T A T G G A T T C C G C A T G C G G C C C A C G A C A T C	hsFATP4
781	T A T G G A T T C C G C A T G C G G C C T G A T G A C A T T	mmFATP4
811	G T C T A T G A C T G C C C T C C C C C T C T A C C A C T C A	hsFATP4
811	G T C T A T G A C T G C C C T C C C C C T C T A C C A C T C A	mmFATP4

FIG. 31D

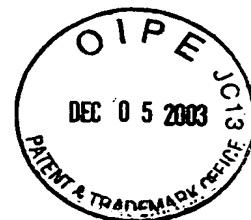


841	-	G	C	A	G	G	A	A	C	A	T	C	G	T	G	G	G	A	A	T	C	G	G	C	C	A	G	T	G	hsFATP4	
841	A	G	C	A	G	G	A	A	C	A	T	C	G	T	G	G	G	A	A	T	C	G	G	C	-	A	G	T	G	mmFATP4	
870	C	C	T	G	C	T	G	C	A	T	G	G	C	A	T	G	A	C	G	T	G	G	T	G	A	T	C	C	G	hsFATP4	
870	C	T	T	A	C	T	C	C	A	C	G	G	C	A	T	G	A	C	T	G	T	G	G	T	G	A	T	C	C	G	mmFATP4
900	G	A	A	G	A	G	T	T	C	T	C	A	G	C	C	T	C	C	C	G	G	T	T	C	T	G	G	G	A	hsFATP4	
900	G	A	A	G	A	G	T	T	C	T	C	A	G	C	C	T	C	C	C	G	G	T	T	C	T	G	G	G	A	mmFATP4	
930	C	G	A	T	T	G	T	A	T	C	A	A	G	T	A	C	A	A	C	T	G	C	A	C	G	A	T	T	G	T	hsFATP4
930	T	G	A	T	T	G	T	A	T	C	A	A	G	T	A	C	A	A	C	T	G	C	A	C	A	G	T	T	G	T	mmFATP4
960	G	C	A	G	T	A	C	A	T	T	G	G	T	G	A	A	C	T	G	T	G	C	C	G	C	T	A	C	C	T	hsFATP4
960	A	C	A	G	T	A	C	A	T	T	G	G	T	G	A	A	C	T	C	T	G	C	C	G	C	T	A	C	C	T	mmFATP4
990	C	C	T	G	A	A	C	C	A	G	C	C	A	C	C	G	C	G	G	A	G	G	C	A	G	A	A	A	A	hsFATP4	
990	C	C	T	G	A	A	C	C	A	G	C	C	A	C	C	C	G	T	G	A	G	G	C	T	G	A	G	T	C	mmFATP4	
1020	C	C	A	G	C	A	C	C	A	G	G	T	T	C	G	C	A	T	G	G	C	A	C	T	A	G	G	C	A	A	hsFATP4
1020	T	C	G	G	C	A	C	A	A	G	G	T	T	C	G	C	A	T	G	G	C	A	C	T	G	G	G	C	A	A	mmFATP4

FIG. 31E



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, et al.  
Replacement Sheet



1050	TGG	CTCCGGCAGTCCCATCTGGACC	AACTT	hsFATP4
1050	CGG	CTCCGGCAGTCCCATCTGGACC	AACTT	mmFATP4
1080	TTC	CAGCCGCTTCCACATACCCAGGTGGC	hsFATP4	
1080	CTC	CAGCCGTTTCCACATACCCAGGTGGC	mmFATP4	
1110	TGAGTTCTA	CGGGGCCACAGAGTGCACCTG	hsFATP4	
1110	TGAGTTCTA	TGGGGCCACTGAGATGCACCTG	mmFATP4	
1140	TAGCCCTGGGCAACTT	CGACAGCCAGGTGGG	hsFATP4	
1140	TAGCCCTGGGCAACTT	TGACAGCCAGGTGGG	mmFATP4	
1170	GGCCCTGGTGGT	TTCAATAGCCGCATCCTGTCT	hsFATP4	
1170	GGCCCTGGTGGC	TTCAATAGCCGCATCCTGTCT	mmFATP4	
1200	CTT	CGTGTA	CTCCGCTTGGGTACCGTGT	hsFATP4
1200	CTT	TGTGTACCTATCCGTTTGGGTACCGTGT	mmFATP4	
1230	CAA	CGAGGA	CACCATGGAGCTGATCCGGGG	hsFATP4
1230	CAA	TGAGGA	TACCATGGAGACTGATCCGGGG	mmFATP4

FIG. 31F





Appl'n No.:  
Title:  
Inventors:

09/405,504  
METHODS OF IDENTIFYING...  
Andreas Stahl, *et al.*  
Replacement Sheet

1260	G	C	C	C	G	A	C	G	G	C	G	T	C	T	G	C	A	T	T	C	C	C	T	G	C	C	A	G	C	C		hsFATP4
1260	A	C	C	C	G	A	T	G	G	A	G	T	C	T	G	C	A	T	T	C	C	C	T	G	T	C	A	A	C	C		mmFATP4
1290	A	G	G	T	G	A	G	C	C	G	G	G	C	C	A	G	C	T	G	G	T	G	G	G	C	C	G	C	A	T		hsFATP4
1290	A	G	G	T	C	A	G	C	C	A	G	G	C	C	A	G	C	T	G	G	T	G	G	G	T	C	G	C	A	T		mmFATP4
1320	C	A	T	C	C	A	G	A	A	G	A	C	C	C	C	C	C	C	T	G	C	G	C	C	G	C	T	T	C	G	A	hsFATP4
1320	C	A	T	C	C	A	G	C	A	G	A	C	C	C	T	C	T	G	C	G	C	C	G	T	T	T	T	C	G	A	mmFATP4	
1350	T	G	G	C	T	A	C	C	T	C	A	A	C	C	A	G	G	G	C	G	C	C	A	A	C	A	A	C	A	A	hsFATP4	
1350	C	G	G	G	T	A	C	C	T	C	A	A	C	C	A	G	G	G	T	G	C	C	A	A	C	A	A	C	A	A	mmFATP4	
1380	G	A	A	G	A	T	T	G	C	C	A	A	G	A	T	G	T	C	T	C	A	A	G	A	A	G	G	G			hsFATP4	
1380	G	A	A	G	A	T	T	G	C	T	A	A	T	G	A	T	G	T	C	T	C	A	A	G	A	A	G	G			mmFATP4	
1410	G	G	A	C	C	A	G	C	C	T	A	C	C	T	T	A	C	T	G	G	T	G	A	T	G	T	G	C	T		hsFATP4	
1410	G	G	A	C	C	A	A	G	C	C	T	A	C	C	T	C	A	C	T	G	G	T	G	A	C	G	T	C	T		mmFATP4	
1440	G	G	T	G	A	T	G	G	A	C	G	A	G	C	T	G	G	G	C	T	A	C	C	T	G	T	A	C	T		hsFATP4	
1440	G	G	T	G	A	T	G	G	A	T	G	A	G	C	T	G	G	G	T	T	A	C	C	T	G	T	A	C	T		mmFATP4	

FIG. 31G





11680	GGA	A	C	T	G	C	C	C	C	T	G	T	A	T	G	C	C	G	G	C	C	C	C	A	T	C	T	T	hsFATP4			
11680	GGA	G	C	C	T	G	C	C	C	T	C	T	G	T	A	T	G	C	C	G	C	C	C	C	A	T	C	T	T	nmFATP4		
11710	C	C	T	G	C	G	C	C	C	T	C	T	G	C	C	T	G	A	G	C	T	G	C	A	C	A	A	A	C	hsFATP4		
11710	C	C	T	G	C	G	C	T	T	C	T	T	G	C	C	T	G	A	G	C	T	G	C	A	C	A	A	G	A	C	nmFATP4	
11740	A	G	G	A	A	C	C	T	A	C	A	A	G	T	T	C	C	A	G	A	A	G	A	C	A	G	A	G	C	T	hsFATP4	
11740	A	G	G	G	A	C	C	T	T	C	A	A	G	T	T	C	C	A	G	A	A	G	A	C	A	G	A	G	T	T	nmFATP4	
11770	A	C	G	G	A	A	G	G	A	G	G	G	C	T	T	T	G	A	C	C	C	G	C	T	A	T	T	G	T	hsFATP4		
11770	G	C	G	G	A	A	G	G	A	G	G	G	C	T	T	T	G	A	C	C	C	A	T	C	T	G	T	T	G	T	nmFATP4	
11800	G	A	A	A	G	A	C	C	C	G	C	T	G	T	T	C	T	A	T	C	T	A	G	A	T	G	C	C	A	hsFATP4		
11800	G	A	A	A	G	A	C	C	C	G	C	T	G	T	T	C	T	A	T	C	T	G	G	A	T	G	C	T	C	G	nmFATP4	
11830	G	A	A	G	G	G	C	C	G	C	T	A	C	G	T	C	C	C	G	C	T	G	G	A	C	C	A	A	G	A	hsFATP4	
11830	G	A	A	G	G	G	C	T	G	C	T	A	C	G	T	C	T	G	C	A	C	T	G	G	A	C	C	A	G	G	A	nmFATP4
11860	G	G	C	C	T	A	C	A	G	C	C	G	C	A	T	C	C	A	G	G	C	A	G	G	C	C	A	G	G	A	hsFATP4	
11860	G	G	C	C	T	A	T	A	C	C	G	C	A	T	C	C	A	G	G	C	A	G	G	C	C	A	G	G	A	G	A	nmFATP4
11890	G	A	A	G	C	T	G																						hsFATP4			
11890	G	A	A	G	C	T	G																						nmFATP4			

FIG. 31I



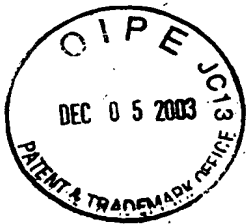
1	M R A P G A G A A S V V S L A L L W L L	hFATP1.
1	M R A P G A G T A S V A S L A L L W F L	mmFATP1
21	G L P W T W S A A A A L G V Y V G S G G	hFATP1.
21	G L P W T W S A A A A F C V Y V G G G G	mmFATP1
41	W R F L R I V C K T A R R D L F G L S V	hFATP1.
41	W R F L R I V C K T A R R D L F G L S V	mmFATP1
61	L I R V R L E L R R H Q R A G H T I P R	hFATP1.
61	L I R V R L E L R R H R R A G D T I P C	mmFATP1
81	I F Q A V V Q R Q P E R L A L V D A G T	hFATP1.
81	I F Q A V A R R Q P E R L A L V D A S S	mmFATP1
101	G E C W T F A Q L D A Y S N A V A N L F	hFATP1.
101	G I C W T F A Q L D T Y S N A V A N L F	mmFATP1
121	R Q L G F A P G D V V A I F L E G R P E	hFATP1.
121	R Q L G F A P G D V V A V F L E G R P E	mmFATP1
141	F V G L W L G L A K A G M E A A L L N V	hFATP1.
141	F V G L W L G L A K A G V V A A L L N V	mmFATP1
161	N L R R E P L A F C L G T S G A K A L I	hFATP1.
161	N L R R E P L A F C L G T S A A K A L I	mmFATP1
181	F G G E M V A A V A E V S G H L G K S L	hFATP1.
181	Y G G E M A A A V A E V S E Q L G K S L	mmFATP1
201	I K F C S G D L G P E G I L P D T H L L	hFATP1.
201	L K F C S G D L G P E S I L P D T Q L L	mmFATP1
221	D P L L K E A S T A P L A Q I P S K G M	hFATP1.
221	D P M L A E A P T T P L A Q A P G K G M	mmFATP1
241	D D R L F Y I Y T S G T T G L P K A A I	hFATP1.
241	D D R L F Y I Y T S G T T G L P K A A I	mmFATP1
261	V V H S R Y Y R M A A F G H H A Y R M Q	hFATP1.
261	V V H S R Y Y R I A A F G H H S Y S M R	mmFATP1

FIG. 32A



281	A A D V L Y D C L P L Y H S A G N I	I G	hFATP1.
281	A A D V L Y D C L P L Y H S A G N I	M G	mmFATP1
301	V G Q C L I Y G L T V V L R K K F S A S		hFATP1.
301	V G Q C V I Y G L T V V L R K K F S A S		mmFATP1
321	R F W D D C I K Y N C T V V Q Y I G E I		hFATP1.
321	R F W D D C V K Y N C T V V Q Y I G E I		mmFATP1
341	C R Y L L K Q P V R E A E R R H R V R L		hFATP1.
341	C R Y L L R Q P V R D V E Q R H R V R L		mmFATP1
361	A V G N G L R P A I W E E F T E R F G V		hFATP1.
361	A V G N G L R P A I W E E F T Q R F G V		mmFATP1
381	R Q I G E F Y G A T E C N C S I A N M D		hFATP1.
381	P Q I G E F Y G A T E C N C S I A N M D		mmFATP1
401	G K V G S C G F N S R I L P H V Y P I R		hFATP1.
401	G K V G S C G F N S R I L T H V Y P I R		mmFATP1
421	L V K V N E D T M E L L R D A Q G L C I		hFATP1.
421	L V K V N E D T M E P L R D S E G L C I		mmFATP1
441	P C Q A G E P G L L V G Q I N Q Q D P L		hFATP1.
441	P C Q P G E P G L L V G Q I N Q Q D P L		mmFATP1
461	R R F D G Y V S E S A T S K K I A H S V		hFATP1.
461	R R F D G Y V S D S A T N K K I A H S V		mmFATP1
481	F S K G D S A Y L S G D V L V M D E L G		hFATP1.
481	F R K G D S A Y L S G D V L V M D E L G		mmFATP1
501	Y M Y F R D R S G D T F R W R G E N V S		hFATP1.
501	Y M Y F R D R S G D T F R W R G E N V S		mmFATP1
521	T T E V E G V L S R L L G Q T D V A V Y		hFATP1.
521	T T E V E A V L S R L L G Q T D V A V Y		mmFATP1
541	G V A V P G V E G K A G M A A V A D P H		hFATP1.
541	G V A V P G V E G K A G M A A I A D P H		mmFATP1

FIG. 32B



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

561	S	L	L	D	P	N	A	I	Y	Q	E	L	Q	K	V	L	A	P	Y	A	hFATP1.
561	S	Q	L	D	P	N	S	M	Y	Q	E	L	Q	K	V	L	A	S	Y	A	mmFATP1
581	R	P	I	F	L	R	L	L	P	Q	V	D	T	T	G	T	F	K	I	Q	hFATP1.
581	R	P	I	F	L	R	L	L	P	Q	V	D	T	T	G	T	F	K	I	Q	mmFATP1
601	K	T	R	L	Q	R	E	G	F	D	P	R	Q	T	S	D	R	L	F	F	hFATP1.
601	K	T	R	L	Q	R	E	G	F	D	P	R	Q	T	S	D	R	L	F	F	mmFATP1
621	L	D	L	K	Q	G	H	Y	L	P	L	N	E	A	V	Y	T	R	I	C	hFATP1.
621	L	D	L	K	Q	G	R	Y	V	P	L	D	E	R	V	H	A	R	I	C	mmFATP1
641	S	G	A	F	A	L															hFATP1.
641	A	G	D	F	S	L															mmFATP1

FIG. 32C

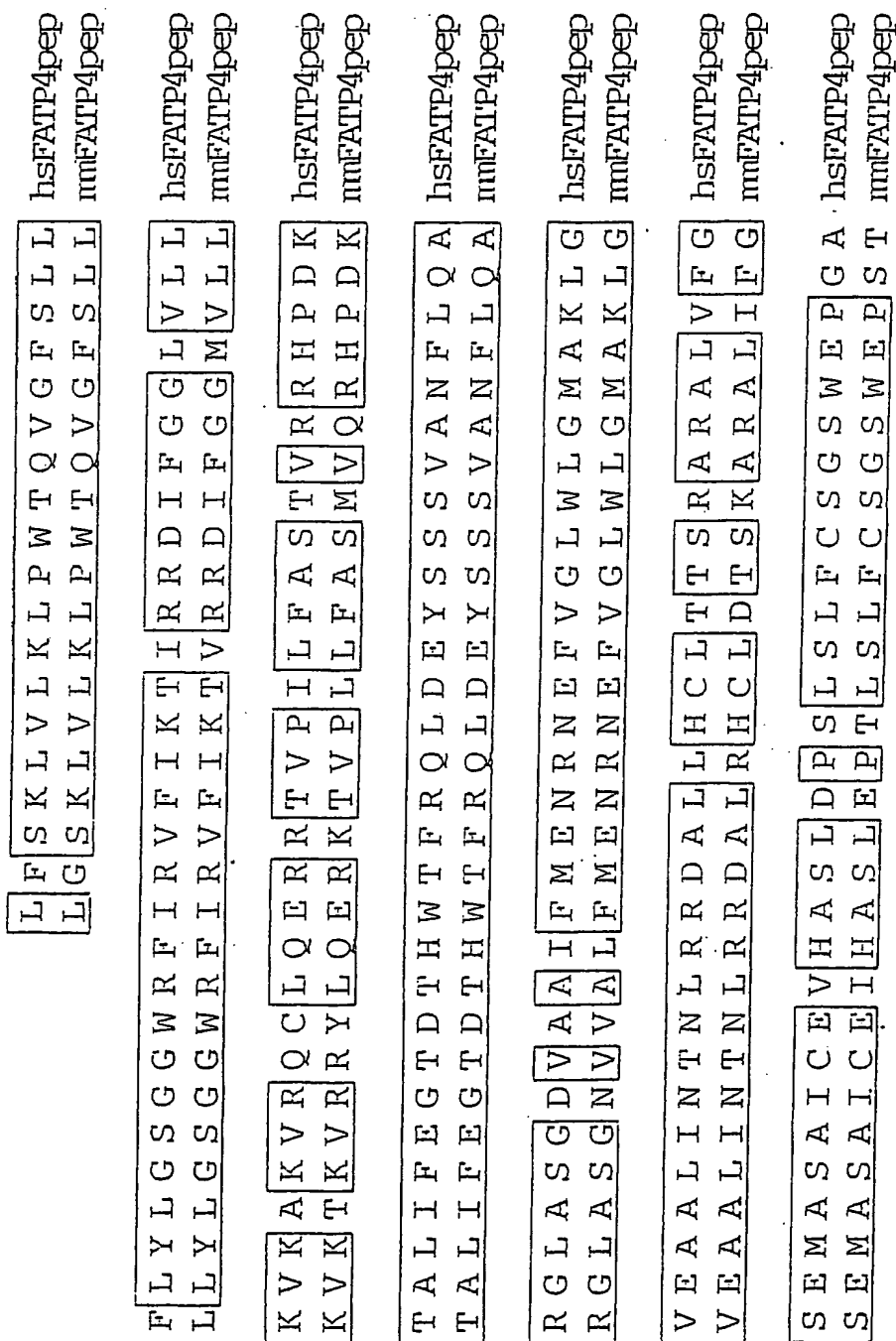


FIG. 33A



V P P S T E H L D P L L K	D A P K H L P S C	P D K G F T D K	hsFATP4pep
V P V S T E H L D P L L E	D A P K H L P S H	P D K G F T D K	mmFATP4pep
L F Y I Y T S G T T G L P K A A I V V H S R Y Y R M A	A L V		hsFATP4pep
L F Y I Y T S G T T G L P K A A I V V H S R Y Y R M A	S L V		mmFATP4pep
Y Y G F R M R P N D I V Y D C L P L Y H S	A G N I V G I G Q		hsFATP4pep
Y Y G F R M R P D D I V Y D C L P L Y H S	S R K H R G D W Q		mmFATP4pep
C L L H G M T V V I R K K F S A S R F W D D C I K Y N C T I			hsFATP4pep
C L L H G M T V V I R K K F S A S R F W D D C I K Y N C T V			mmFATP4pep
V Q Y I G E L C R Y L L N Q P P R E A E N Q	H Q	V R M A L G	hsFATP4pep
V Q Y I G E L C R Y L L N Q P P R E A E S R	H K	V R M A L G	mmFATP4pep
N G L R Q S I W T N F S S R F H I P Q V A E F Y G A T E C N			hsFATP4pep
N G L R Q S I W T D F S S R F H I P Q V A E F Y G A T E C N			mmFATP4pep
C S L G N F D S Q V G A C G F N S R I L S F V Y P I R L V R			hsFATP4pep
C S L G N F D S R V G A C G F N S R I L S F V Y P I R L V R			mmFATP4pep

FIG. 33B



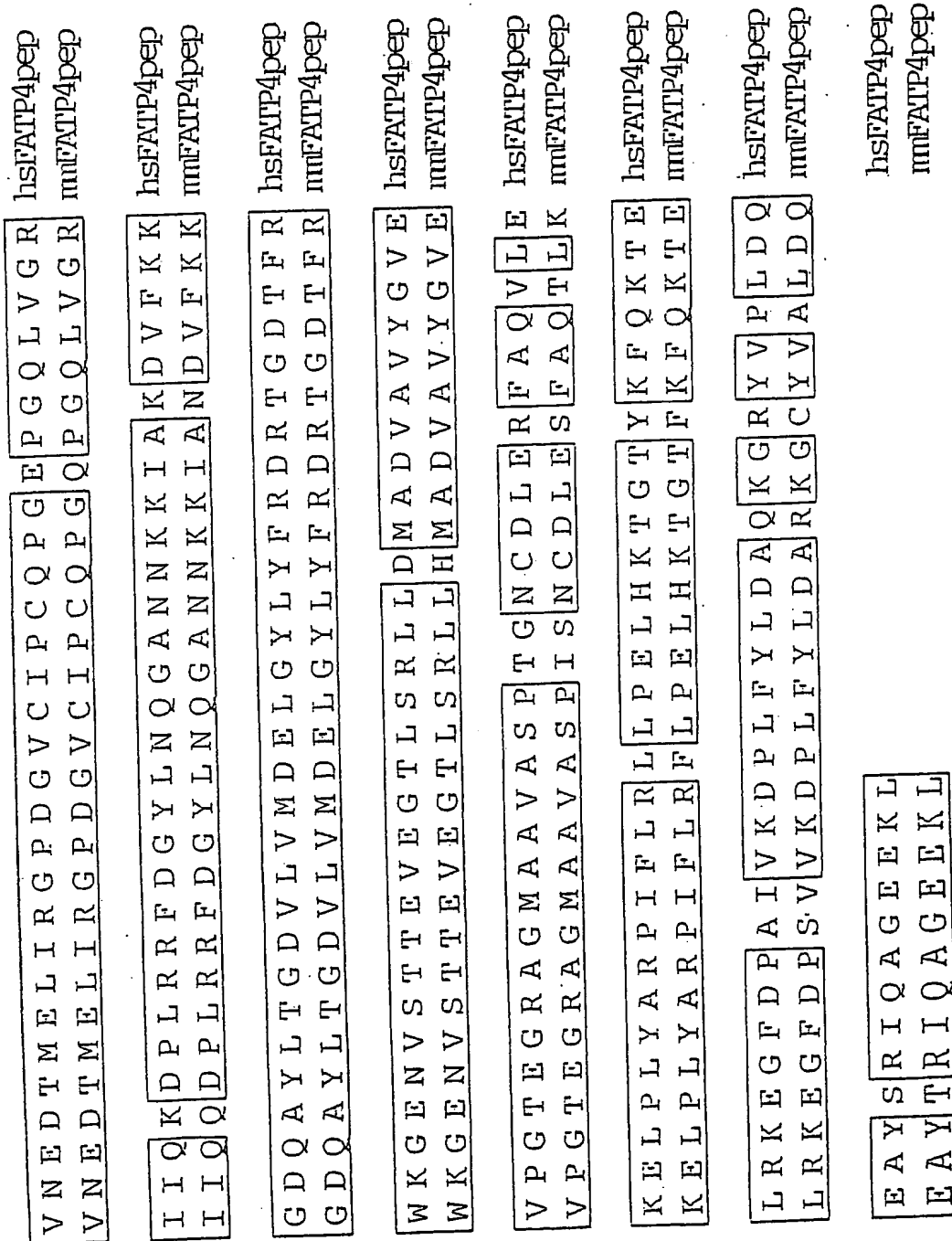
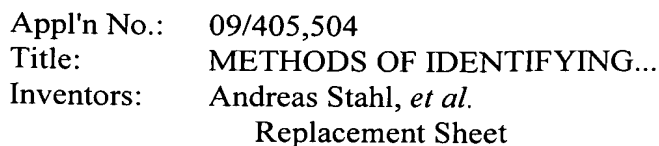
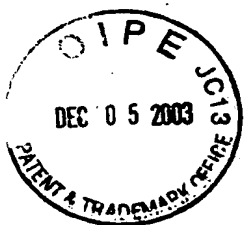


FIG. 33C



1 aac ggc aag taa gcg caa cgc aat taa tgt gag tag ctc act cat tag gca ccc cag gct  
61 tta cac ttt atg ctt ccg ggc tcg tat gtt gtg tgg aat tgt gag cgg ata cca att tca  
121 cac agg aac cag cta tga cat gat tac gaa ttt aat acg act cac tat agg gaa ttt ggc  
181 cct cga ggc caa gaa ttc ggc acg agg ggt gct gag ccc ctg cgc cgt ttc ccg gct cga att  
241 gag act gta aat cgc tgc gct tct cag tca tca tcc cag ctt ttc ccg gct cga att  
301 cag cct cca act caa gct cgc ggc ggg aaa gac tac ctg aga gga gaa aag ctt ctg tcc ctg  
361 gac ctt ctt ctg agg gtg gag tgc ggc ggt gct ccc tgc ttt cca gcc gcc tga ccc aag  
421 ctt aat ctt cag cac cct cct cct cct cct cct cct cct cct cct cct cct cct cct  
481 agg att cct ccc cat ccc gct tgc ccc cgg aaa agc tga caa gaa ctt cag gtg taa gcc  
541 ctg agt agt gag gat ctg cgg tct ccg tgg aga gct gtg cct gga aga gaa gga cgc tgg  
601 tgg ggg ctg aga tca gag ctg tct tct ggc cca gtt gcc ccc atg ctt ctg tca tgg cta  
661 aca gtt cta ggg gct gga atg gtc gtc ctg ctg cac ttc ttg cag aaa ctc ctg ttc cct tac  
721 T V L G A G M V V L H F L Q K L L F P Y  
F W D D F W F V L K V V L I I I R L K K  
781 tat gaa aag aga ggg gag ctg gtg act gtg ctg gat aaa ttc ttg agt cat gcc aaa aga  
Y E K R G E L V T V L D K F L S H A K R



841 caa cct cgg aaa cct ttc atc atc tat gag gga gac atc tac acc tat cag gat gta gac  
Q P R K P F I I I Y E G D I Y T Y Q D V D  
901 aaa agg agc agc aga gtg gcc cat gtc ttc ctg aac cat tcc tct ctg aaa aag ggg gac  
K R S S R V A H V F L N H S S L K K G D  
961 acg gtg gct ctg atg agc aat gag ccg gac ttc gtt cac gtg tgg ttc ggc ctc gcc  
T V A L L M S N E P D F V H V W F G L A  
1021 aag ctg ggc tgc gtg gtg gcc ttt ctc aac acc aac att cgc tcc aac tcc ctc ctg aat  
K L G C V V A F L N T N I R S N S L L N  
1081 tgc atc cgc gcc tgt ggg gcc aga gcc cta gtg gtg ggc gca gat ttg ctt gga acg gta  
C I R A C G P R A L V V G A D L L G T V  
  
1141 gaa gaa atc ctt cca agc ctc tca gaa aat atc agt gtt tgg ggg atg aaa gat tct gtt  
E I L P S L S E N I S V W G M K D S V  
1201 cca caa ggt gta att tca ctc aaa gaa aaa ctg agc acc tca cct gat gag ccc gtg cca  
P Q G V I S L K E K L S T S P D E P V P  
1261 cgc agc cac cat gtt gtc tca ctc aag tct act tgt ctt tac att ttt acc tct gga  
R S H H V V S L L K S T C L Y I F T S G  
1321 aca aca ggt cta cca aaa gca gct gtg att agt cag ctg cag gtt tta agg ggt tct gct  
T T G L P K A A V I S Q L Q V L R G S A  
1381 gtc ctg tgg gct ttt ggt tgt act gct cat gac att gtt tat ata acc ctt cct ctg tat  
V L W A F G C T A H D I V Y I T L P L Y

FIG. 34B



1441 cat agt tca gca gct atc ctg gga att tct gga tgt. gtt gag ttg ggt gcc act tgt gtg  
H S S A A I L G I S G C V E L G A T C V  
1501 tta aag aag aaa ttt tca gca agc cag ttt tgg agt gac tgc aag aag tat gat gtg act  
L K K K F S A S Q F W S D C K K Y D V T  
1561 gtg ttt cag tat att gga gaa ctt tgt cgc tac ctt tgc aaa caa tct aag aga gaa gga  
V F Q Y I G E L C R Y L C K Q S K R E G  
1621 gaa aag gat cat aag gtg cgt ttg gca att gga aat ggc ata cgg agt gat gta tgg aga  
E K D H K V R L A I G N G I R S D V W R  
1681 gaa ttt tta gac aga ttt gga aat ata aag gtg tgt gaa ctt tat gca gct acc gaa tca  
E F L D R F G N I K V C E L Y A A T E S  
1741 agc ata tct ttc atg aac tac act ggg aga att gga gca att ggg aga aca aat ttg ttt  
S I S F M N Y T G R I G A I G R T N L F  
1801 tac aaa ctt ctt tcc act ttt gac tta ata aag tat gac ttt cag aaa gat gaa ccc atg  
Y K L L S T F D L I K Y D F Q K D E P M  
1861 aga aat gag cag ggt tgg tgt att cat gtg aaa gga gaa cct gga ctt ctc att tct  
R N E Q G W C I H V K K G E P G L L I S  
1921 cga gtg aat gca aaa aat ccc ttc ttt ggc tat gct ggg cct tat aag cac aca aaa gac  
R V N A K N P F F G Y A G P Y K H T K D  
1981 aaa ttg ctt tgt gat gtt ttt aag aag gga gat gtt tac ctt aat act gga gac tta ata  
K L L C D V F K K G D V Y L N T G D L I  
2041 gtc cag gat cag gac aat ttc ctt tat ttt tgg gac cgt act gga gac act ttc aga tgg  
V Q D Q D N F L Y F W D R T G D T F R W  
2101 aaa gga gaa aat gtc gca acc act gag gtt gct gat gtt att gga atg ttg gat ttc ata

FIG. 34C



1	M	R	A	P	-	-	G	A	G	A	A	S	V	V	S	L	A	L	L	W	hsFATP1pep
1	L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	F	S	K	L	-	hsFATP4pep
1	M	L	L	S	W	L	T	V	L	G	A	G	M	V	V	L	H	F	L	Q	hsFATP6pep
19	L	L	G	L	P	W	T	W	S	A	A	A	A	L	G	V	Y	V	G	S	hsFATP1pep
6	V	L	K	L	P	W	T	Q	V	G	F	S	L	L	F	L	Y	L	G	S	hsFATP4pep
21	K	L	L	F	P	Y	F	W	D	D	F	-	-	-	-	-	-	-	-	-	hsFATP6pep
39	G	G	W	R	F	L	R	I	V	C	K	T	A	R	R	D	L	F	G	L	hsFATP1pep
26	G	G	W	R	F	I	R	V	F	I	K	T	I	R	R	D	I	F	G	G	hsFATP4pep
32	-	-	W	F	V	L	K	V	-	-	-	-	-	-	-	-	-	-	-	-	hsFATP6pep
59	S	V	L	I	R	V	R	L	E	L	R	R	H	Q	R	A	G	H	T	I	hsFATP1pep
46	L	V	L	L	K	V	K	A	K	V	R	Q	C	L	Q	E	R	R	T	V	hsFATP4pep
38	-	V	L	I	I	I	R	L	K	K	Y	E	K	R	G	E	L	V	T	V	hsFATP6pep
79	P	R	I	F	Q	A	V	V	Q	R	Q	P	E	R	L	A	L	V	D	A	hsFATP1pep
66	P	I	L	F	A	S	T	V	R	R	H	P	D	K	T	A	L	I	F	E	hsFATP4pep
57	L	D	K	F	L	S	H	A	K	R	Q	P	R	K	P	F	I	I	Y	E	hsFATP6pep

FIG. 36A



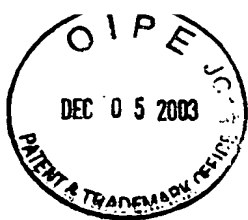
99	G	T	G	E	C	W	T	F	A	Q	L	D	A	Y	S	N	A	V	A	N	hsFATP1pep
86	G	T	D	T	H	W	T	F	R	Q	L	D	E	Y	S	S	S	V	A	N	hsFATP4pep
77	G	-	-	D	I	Y	T	Y	Q	D	V	D	K	R	S	S	R	V	A	H	hsFATP6pep
119	-	L	F	R	Q	L	G	F	A	P	G	D	V	V	A	I	F	L	E	G	hsFATP1pep
106	-	F	L	Q	A	R	G	L	A	S	G	D	V	A	A	I	F	M	E	N	hsFATP4pep
95	V	F	L	N	H	S	S	L	K	K	G	D	T	V	A	L	L	M	S	N	hsFATP6pep
138	R	P	E	F	V	G	L	W	L	G	L	A	K	A	G	M	E	A	A	L	hsFATP1pep
125	R	N	E	F	V	G	L	W	L	G	M	A	K	L	G	V	E	A	A	L	hsFATP4pep
115	E	P	D	F	V	H	V	W	F	G	L	A	K	L	G	C	V	V	A	F	hsFATP6pep
158	L	N	V	N	L	R	R	E	P	L	A	F	C	L	G	T	S	G	A	K	hsFATP1pep
145	I	N	T	N	L	R	R	D	A	L	L	H	C	L	T	T	S	R	A	R	hsFATP4pep
135	L	N	T	N	I	R	S	N	S	L	L	N	C	I	R	A	C	G	P	R	hsFATP6pep
178	A	L	I	F	G	G	E	M	V	A	A	V	A	E	V	S	G	H	L	G	hsFATP1pep
165	A	L	V	F	G	S	E	M	A	S	A	I	C	E	V	H	A	S	L	D	hsFATP4pep
155	A	L	V	V	G	A	D	L	L	G	T	V	E	E	I	L	P	S	L	S	hsFATP6pep

FIG. 36B



198	K	S	L	I	K	F	C	S	G	D	L	G	P	E	G	I	L	P	D	T	hsFATP1pep
185	P	S	L	S	L	F	C	S	G	S	W	E	P	G	A	V	P	P	S	T	hsFATP4pep
175	E	N	I	S	V	W	G	M	K	D	S	V	P	Q	G	V	I	S	-	-	hsFATP6pep
218	H	L	L	D	P	L	L	K	E	A	S	T	A	P	L	A	Q	I	P	S	hsFATP1pep
205	E	H	L	D	P	L	L	K	D	A	P	K	-	H	L	P	S	C	P	D	hsFATP4pep
193	-	-	L	K	E	K	L	S	T	S	P	D	E	P	V	P	R	S	H	H	hsFATP6pep
238	K	G	-	-	M	D	D	R	L	F	Y	I	Y	T	S	G	T	T	G	L	hsFATP1pep
224	K	G	-	-	F	T	D	K	L	F	Y	I	Y	T	S	G	T	T	G	L	hsFATP4pep
211	V	V	S	L	L	K	S	T	C	L	Y	I	F	T	S	G	T	T	G	L	hsFATP6pep
256	P	K	A	A	I	V	V	H	S	R	Y	Y	R	M	A	A	F	G	H	H	hsFATP1pep
242	P	K	A	A	I	V	V	H	S	R	Y	Y	R	M	A	A	L	V	Y	Y	hsFATP4pep
231	P	K	A	A	V	I	S	Q	L	Q	V	L	R	G	S	A	-	V	L	W	hsFATP6pep
276	A	Y	R	M	Q	A	A	D	V	L	Y	D	C	L	P	L	Y	H	S	A	hsFATP1pep
262	G	F	R	M	R	P	N	D	I	V	Y	D	C	L	P	L	Y	H	S	A	hsFATP4pep
250	A	F	G	C	T	A	H	D	I	V	Y	I	T	L	P	L	Y	H	S	S	hsFATP6pep

FIG. 36C

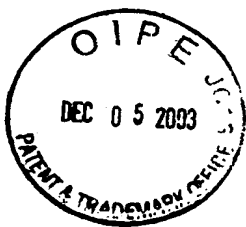


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296	G	N	I	I	G	V	G	Q	C	L	I	Y	G	L	T	V	V	L	R	K	hsFATP1pep	
282	G	N	I	V	G	I	G	Q	C	L	L	H	G	M	T	V	V	I	R	K	hsFATP4pep	
270	A	A	I	L	G	I	S	G	C	V	E	L	G	A	T	C	V	L	K	K	hsFATP6pep	
316	K	F	S	A	S	R	F	W	D	D	C	I	K	Y	N	C	T	V	V	Q	hsFATP1pep	
302	K	F	S	A	S	R	F	W	D	D	C	I	K	Y	N	C	T	I	V	Q	hsFATP4pep	
290	K	F	S	A	S	Q	F	W	S	D	C	K	K	Y	D	V	T	V	F	Q	hsFATP6pep	
336	Y	I	G	E	I	C	R	Y	L	L	K	Q	P	V	R	E	A	E	R	R	hsFATP1pep	
322	Y	I	G	E	L	C	R	Y	L	L	N	Q	P	P	R	E	A	E	N	Q	hsFATP4pep	
310	Y	I	G	E	L	C	R	Y	L	L	C	K	Q	S	K	R	E	G	E	K	D	hsFATP6pep
356	H	R	V	R	L	A	V	G	N	G	L	R	P	A	I	W	E	E	F	T	hsFATP1pep	
342	H	Q	V	R	M	A	L	G	N	G	L	R	Q	S	I	W	T	N	F	S	hsFATP4pep	
330	H	K	V	R	L	A	I	G	N	G	I	R	S	D	V	W	R	E	F	L	hsFATP6pep	
376	E	R	F	G	V	R	Q	I	G	E	F	Y	G	A	T	E	C	N	C	S	hsFATP1pep	
362	S	R	F	H	I	P	Q	V	A	E	F	Y	G	A	T	E	C	N	C	S	hsFATP4pep	
350	D	R	F	G	N	I	K	V	C	E	L	Y	A	A	T	E	S	S	I	S	hsFATP6pep	

FIG. 36D





396	I	A	N	M	D	G	K	V	G	S	C	G	F	N	S	R	I	L	P	H	hsFATP1pep
382	L	G	N	F	D	S	Q	V	G	A	C	G	F	N	S	R	I	L	S	F	hsFATP4pep
370	F	M	N	Y	T	G	R	I	G	A	I	G	R	T	N	L	F	Y	K	L	hsFATP6pep
416	V	Y	P	I	R	L	V	K	V	N	E	D	T	M	E	L	L	R	D	A	hsFATP1pep
402	V	Y	P	I	R	L	V	R	V	N	E	D	T	M	E	L	I	R	G	P	hsFATP4pep
390	L	S	T	F	D	L	I	K	Y	D	F	Q	K	D	E	P	M	R	N	E	hsFATP6pep
436	Q	G	L	C	I	P	C	Q	A	G	E	P	G	L	L	V	G	Q	I	N	hsFATP1pep
422	D	G	V	C	I	P	C	Q	P	G	E	P	G	Q	L	V	G	R	I	I	hsFATP4pep
410	Q	G	W	C	I	H	V	K	K	G	E	P	G	L	L	I	S	R	V	N	hsFATP6pep
456	Q	Q	D	P	L	R	R	F	D	G	Y	V	S	E	S	A	T	S	K	-	hsFATP1pep
442	Q	K	D	P	L	R	R	F	D	G	Y	L	N	Q	G	A	N	N	K	-	hsFATP4pep
430	A	K	N	P	-	-	-	F	F	G	Y	A	G	P	Y	K	H	T	K	D	hsFATP6pep
475	K	I	A	H	S	V	F	S	K	G	D	S	A	Y	L	-	S	G	D	V	hsFATP1pep
461	K	I	A	K	D	V	F	K	K	G	D	Q	A	Y	L	-	T	G	D	V	hsFATP4pep
447	K	L	L	C	D	V	F	K	K	G	D	-	V	Y	L	N	T	G	D	L	hsFATP6pep

FIG. 36E



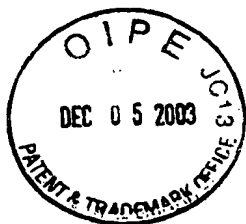
494	L	V	M	D	E	L	G	Y	M	Y	F	R	D	R	S	G	D	T	F	R	hsFATP1pep
480	L	V	M	D	E	L	G	Y	L	Y	F	R	D	R	T	G	D	T	F	R	hsFATP4pep
466	I	V	Q	D	Q	D	N	F	L	Y	F	W	D	R	T	G	D	T	F	R	hsFATP6pep
514	W	R	G	E	N	V	S	T	T	E	V	E	G	V	L	S	R	L	L	G	hsFATP1pep
500	W	K	G	E	N	V	S	T	T	E	V	E	G	T	L	S	R	L	L	D	hsFATP4pep
486	W	K	G	E	N	V	A	T	T	E	V	A	D	V	I	G	M	L	D	F	hsFATP6pep
534	Q	T	D	V	A	V	Y	G	V	A	V	P	G	V	E	G	K	A	G	M	hsFATP1pep
520	M	A	D	V	A	V	Y	G	V	E	V	P	G	T	E	G	R	A	G	M	hsFATP4pep
506	I	Q	E	A	N	V	Y	G	V	A	I	S	G	Y	E	G	R	A	G	M	hsFATP6pep
554	A	A	V	A	-	D	P	H	S	L	L	D	P	N	A	I	Y	Q	E	L	hsFATP1pep
540	A	A	V	A	-	S	P	T	G	N	C	D	L	E	R	F	A	Q	V	L	hsFATP4pep
526	A	S	I	I	L	K	P	N	T	S	L	D	L	E	K	V	Y	E	Q	V	hsFATP6pep
573	Q	K	V	L	A	P	Y	A	R	P	I	F	L	R	L	L	P	Q	V	D	hsFATP1pep
559	E	K	E	L	P	L	Y	A	R	P	I	F	L	R	L	L	P	E	L	H	hsFATP4pep
546	V	T	F	L	P	A	Y	A	C	P	R	F	L	R	I	Q	E	K	M	E	hsFATP6pep

FIG. 36F



593	T	T	G	T	F	K	I	Q	K	T	R	L	Q	R	E	G	F	D	P	R	hsFATP1pep
579	K	T	G	T	Y	K	F	Q	K	T	E	L	R	K	E	G	F	D	P	A	hsFATP4pep
566	A	T	G	T	F	K	L	L	K	H	Q	L	V	E	D	G	F	N	P	L	hsFATP6pep
613	Q	T	S	D	R	L	F	F	L	D	L	K	Q	G	H	Y	L	P	L	N	hsFATP1pep
599	I	V	K	D	P	L	F	Y	L	D	A	Q	K	G	R	Y	V	P	L	D	hsFATP4pep
586	K	I	S	E	P	L	Y	F	M	D	N	L	K	K	S	Y	V	L	L	T	hsFATP6pep
633	E	A	V	Y	T	R	I	C	S	G	A	F	A	L							hsFATP1pep
619	Q	E	A	Y	S	R	I	Q	A	G	E	E	K	L							hsFATP4pep
606	R	E	L	Y	D	Q	I	M	L	G	E	I	K	L							hsFATP6pep

FIG. 36G



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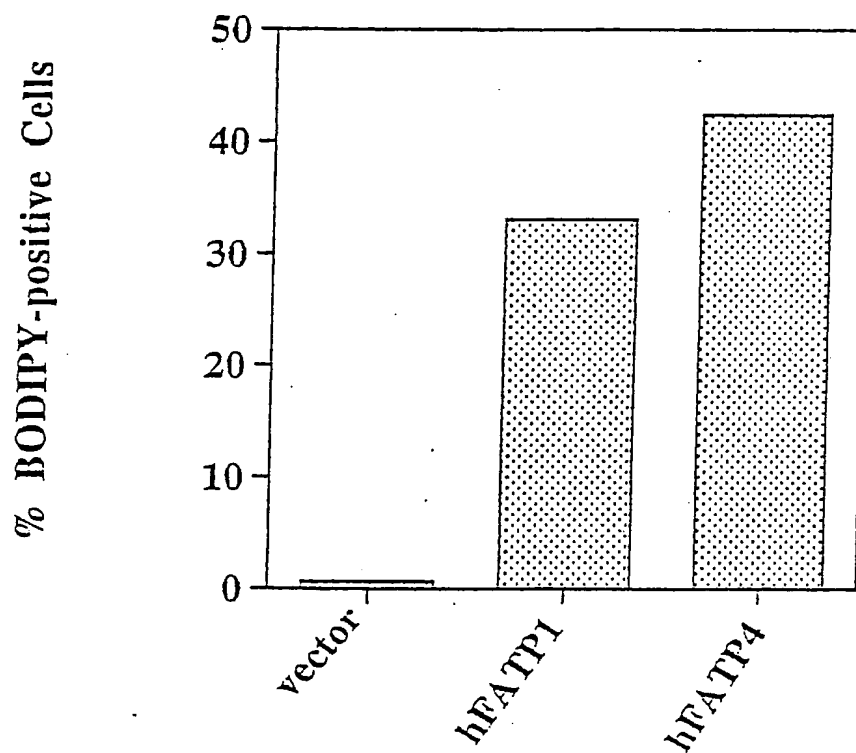
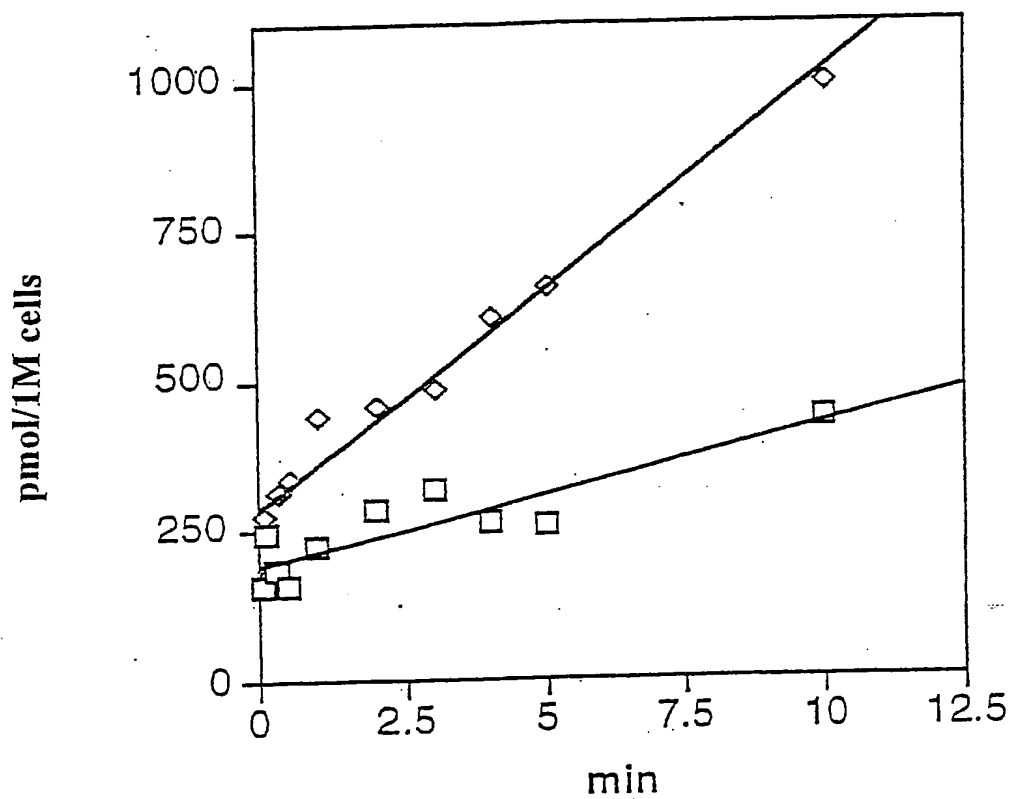


FIG. 37

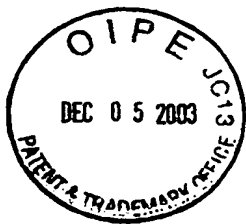


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- 293 vector control: 23 pmol/(min\*1\*10<sup>6</sup> cells)  
◇ 293 FATP4 clone 7: 73 pmol/(min\*1\*10<sup>6</sup> cells)

FIG. 38



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hsFATP4_	1	MLL	-	GASLVGVLLFSKL	-	VLKLPWTQVGFSL	L	F	31
mmFATP4_	1	MLL	-	GASLVGVLLFSKL	-	VLKLPWTQVGFSL	L	X	31
hsFATP1_	1	MRA	P	GAGAA	S	V	S	L	33
hsFATP4_	32	L	Y	L	G	S	G	G	64
mmFATP4_	32	L	Y	L	G	S	G	G	64
hsFATP1_	34	V	Y	V	G	S	G	G	66
hsFATP4_	65	K	V	R	Q	C	L	Q	97
mmFATP4_	65	K	V	R	R	Y	L	Q	97
hsFATP1_	67	E	L	R	R	H	Q	R	99
hsFATP4_	98	T	D	T	H	W	T	F	130
mmFATP4_	98	T	D	T	H	W	T	F	130
hsFATP1_	100	T	G	E	C	W	T	F	132
hsFATP4_	131	I	F	M	E	N	R	N	163
mmFATP4_	131	L	F	M	E	N	R	N	163
hsFATP1_	133	I	F	L	E	G	R	P	165
hsFATP4_	164	A	L	H	C	L	T	S	196
mmFATP4_	164	A	L	R	H	C	L	D	196
hsFATP1_	166	P	L	A	F	C	L	G	198
hsFATP4_	197	S	L	S	L	F	C	S	228
mmFATP4_	197	T	L	S	L	F	C	S	228
hsFATP1_	199	S	L	I	K	F	C	S	231

FIG. 39A



hsFATP4_229	L	P	S	C	P	D	K	G	F	T	D	K	L	F	Y	I	Y	T	S	G	T	T	G	L	P	K	A	A	I	V	V	H	S	261
mmFATP4_229	L	P	S	H	P	D	K	G	F	T	D	K	L	F	Y	I	Y	T	S	G	T	T	G	L	P	K	A	A	I	V	V	H	S	261
hsFATP1_232	L	A	Q	I	P	S	K	G	M	D	R	L	F	Y	I	Y	T	S	G	T	T	G	L	P	K	A	A	I	V	V	H	S	264	
hsFATP4_262	R	Y	Y	R	M	A	A	L	V	Y	G	F	R	M	R	P	N	D	I	V	Y	D	C	L	P	L	Y	H	S	A	G	N	294	
mmFATP4_262	R	Y	Y	R	M	A	S	L	V	Y	G	F	R	M	R	P	D	D	I	V	Y	D	C	L	P	L	Y	H	S	S	R	K	294	
hsFATP1_265	R	Y	Y	R	M	A	A	F	G	H	H	A	Y	R	M	Q	A	D	V	L	Y	D	C	L	P	L	Y	H	S	A	G	N	297	
hsFATP4_295	I	V	G	I	G	Q	C	L	L	H	G	M	T	V	V	I	R	K	K	F	S	A	S	R	F	W	D	D	C	I	K	Y	N	327
mmFATP4_295	H	R	G	D	W	Q	C	L	L	H	G	M	T	V	V	I	R	K	K	F	S	A	S	R	F	W	D	D	C	I	K	Y	N	327
hsFATP1_298	I	I	G	V	G	Q	C	L	I	Y	G	L	T	V	V	L	R	K	K	F	S	A	S	R	F	W	D	D	C	I	K	Y	N	330
hsFATP4_328	C	T	I	V	Q	Y	I	G	E	L	C	R	Y	L	L	N	Q	P	P	R	E	A	E	N	Q	H	Q	V	R	M	A	L	G	360
mmFATP4_328	C	T	V	V	Q	Y	I	G	E	L	C	R	Y	L	L	N	Q	P	P	R	E	A	E	S	R	H	K	V	R	M	A	L	G	360
hsFATP1_331	C	T	V	V	Q	Y	I	G	E	I	C	R	Y	L	L	K	Q	P	V	R	E	A	E	R	R	H	R	V	R	L	A	V	G	363
hsFATP4_361	N	G	L	R	Q	S	I	W	T	N	F	S	S	R	F	H	I	P	Q	V	A	E	F	Y	G	A	T	E	C	N	C	S	L	393
mmFATP4_361	N	G	L	R	Q	S	I	W	T	D	F	S	S	R	F	H	I	P	Q	V	A	E	F	Y	G	A	T	E	C	N	C	S	L	393
hsFATP1_364	N	G	L	R	P	A	I	W	E	E	F	T	E	R	F	G	V	R	Q	I	G	E	F	Y	G	A	T	E	C	N	C	S	I	396
hsFATP4_394	G	N	F	D	S	Q	V	G	A	C	G	F	N	S	R	I	L	S	F	V	Y	P	I	R	L	V	R	V	N	E	D	T	M	426
mmFATP4_394	G	N	F	D	S	R	V	G	A	C	G	F	N	S	R	I	L	S	F	V	Y	P	I	R	L	V	R	V	N	E	D	T	M	426
hsFATP1_397	A	N	M	D	G	K	V	G	S	C	G	F	N	S	R	I	L	P	H	V	Y	P	I	R	L	V	K	V	N	E	D	T	M	429

FIG. 39B



hsFATP4_427	ELIRGPDGVCIP	CGPGE	PGQLVGR	IIQ	KDPLRR	459																													
mmFATP4_427	ELIRGPDGVCIP	CGPGE	QPGQLVGR	IIQ	QDPLRR	459																													
hsFATP1_430	ELIRDAQGLCIP	CA	GEPLLVG	QIN	QDPLRR	462																													
hsFATP4_460	FDGYLNQGAN	KKIA	KDVFK	KGDQA	YLTGDVLV	492																													
mmFATP4_460	FDGYLNQGAN	KKIA	ANDVFK	KGDQA	YLTGDVLV	492																													
hsFATP1_463	FDGYVSE	ATS	KKIA	HSVFS	KGDSAYLS	GDVLV	495																												
hsFATP4_493	MDELGYLY	F	R	D	R	T	G	D	T	F	R	W	K	G	E	N	V	S	T	T	E	V	E	G	T	L	525								
mmFATP4_493	MDELGYLY	F	R	D	R	T	G	D	T	F	R	W	K	G	E	N	V	S	T	T	E	V	E	G	T	L	525								
hsFATP1_496	MDELGYM	Y	F	R	D	R	S	G	D	T	F	R	W	R	G	E	N	V	S	T	T	E	V	E	G	V	L	528							
hsFATP4_526	SRLD	M	A	D	V	A	V	G	V	E	V	P	G	T	E	G	R	A	G	M	A	A	V	A	S	P	T	G	558						
mmFATP4_526	SRLH	M	A	D	V	A	V	G	V	E	V	P	G	T	E	G	R	A	G	M	A	A	V	A	S	P	I	S	558						
hsFATP1_529	SRLG	Q	T	D	V	A	V	G	V	A	V	P	G	V	E	G	K	A	G	M	A	A	V	A	D	P	H	S	561						
hsFATP4_559	NCDLER	F	A	Q	V	L	E	K	E	L	P	L	Y	A	R	P	I	F	L	R	L	P	E	L	H	K	T	591							
mmFATP4_559	NCDLES	F	A	Q	T	L	K	K	E	L	P	L	Y	A	R	P	I	F	L	R	F	L	P	E	L	H	K	T	591						
hsFATP1_562	L	L	D	P	N	A	I	Y	Q	E	L	Q	K	V	L	A	P	Y	A	R	P	I	F	L	R	L	P	Q	V	D	T	594			
hsFATP4_592	G	T	Y	K	F	Q	K	T	E	L	R	K	E	G	F	D	P	A	I	V	K	D	P	L	F	Y	L	D	A	Q	K	G	R	624	
mmFATP4_592	G	T	F	K	F	Q	K	T	E	L	R	K	E	G	F	D	P	S	V	V	K	D	P	L	F	Y	L	D	A	R	K	G	C	624	
hsFATP1_595	G	T	F	K	T	I	Q	K	T	R	L	Q	R	E	G	F	D	P	R	Q	T	S	D	R	L	F	F	L	D	L	K	Q	G	H	627
hsFATP4_625	Y	V	P	L	D	Q	E	A	Y	S	R	I	Q	A	G	E	E	K	L															643	
mmFATP4_625	Y	V	A	L	D	Q	E	A	Y	T	R	I	Q	A	G	E	E	K	L															643	
hsFATP1_628	Y	L	P	L	N	E	A	V	Y	T	R	I	C	S	G	A	F	A	L															646	

FIG. 39C





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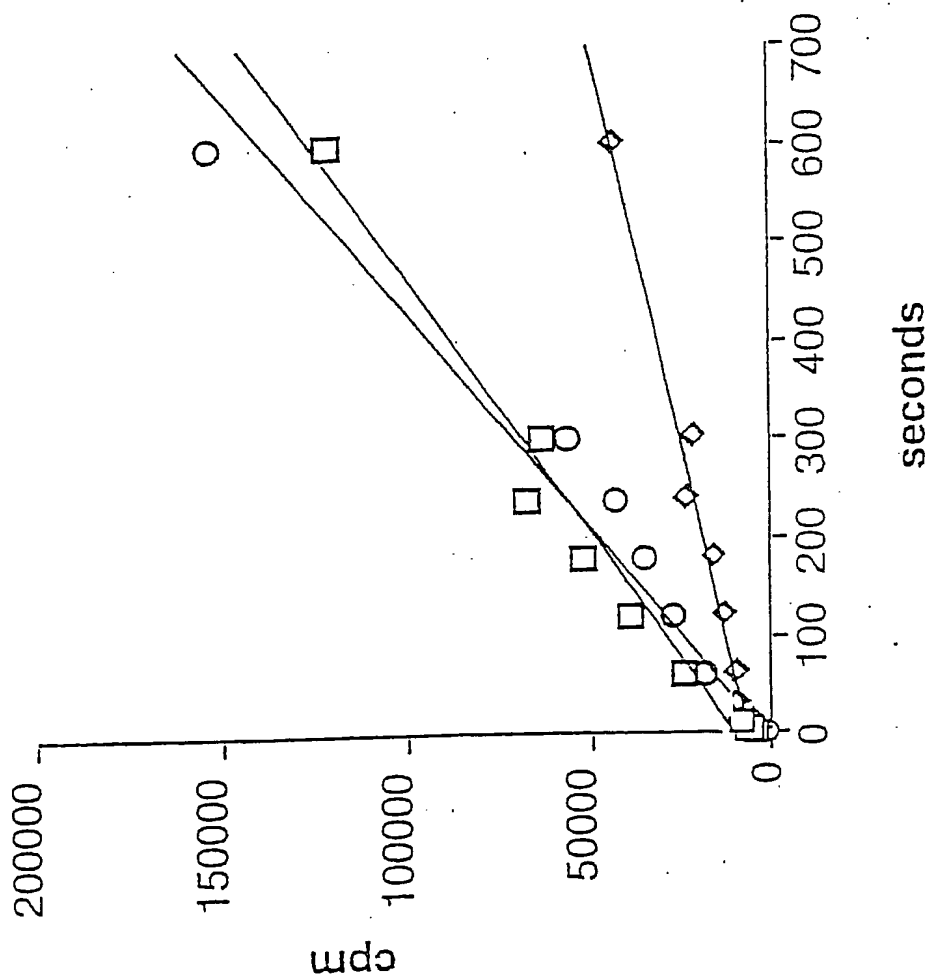


FIG. 40



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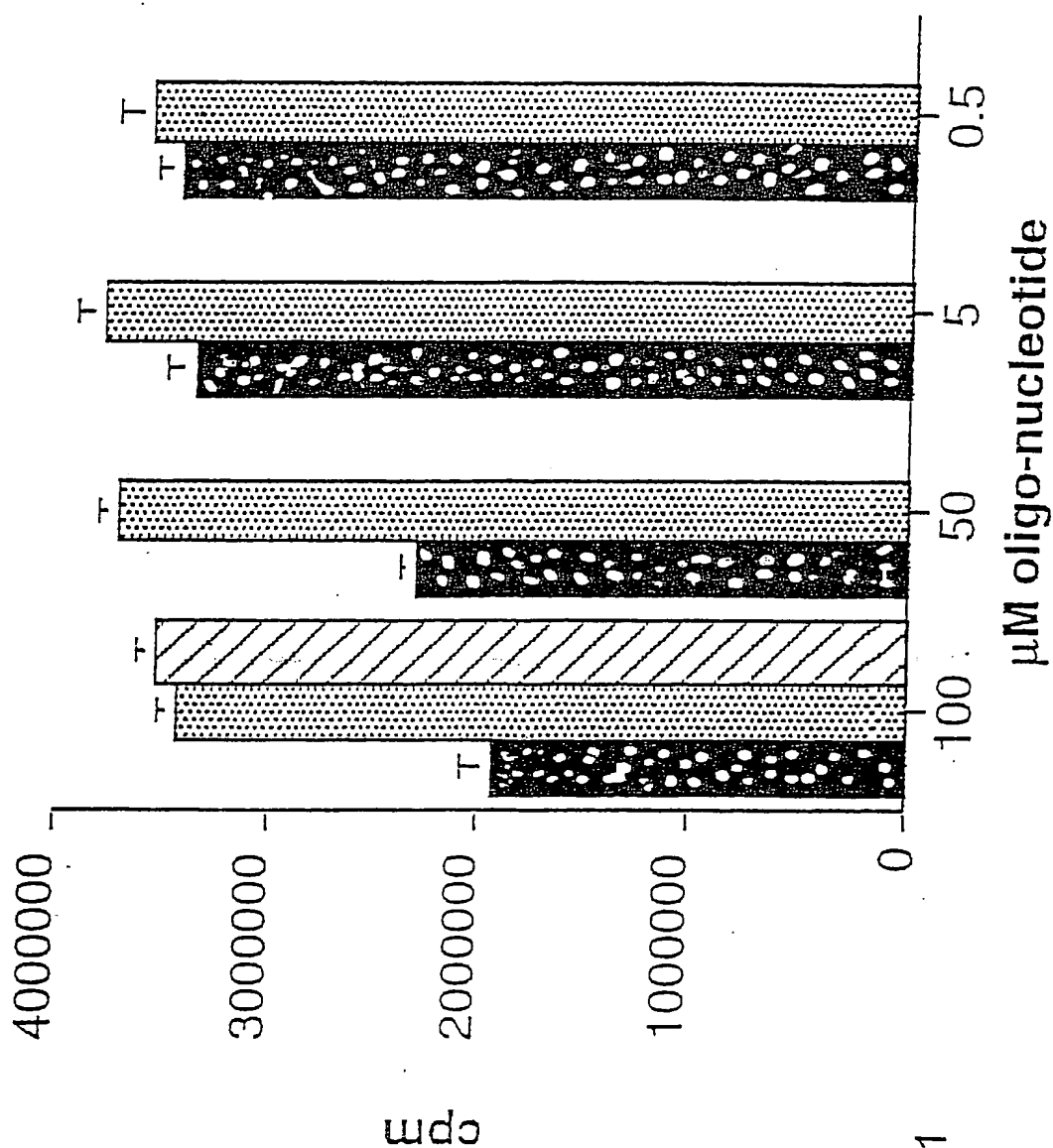


FIG. 41



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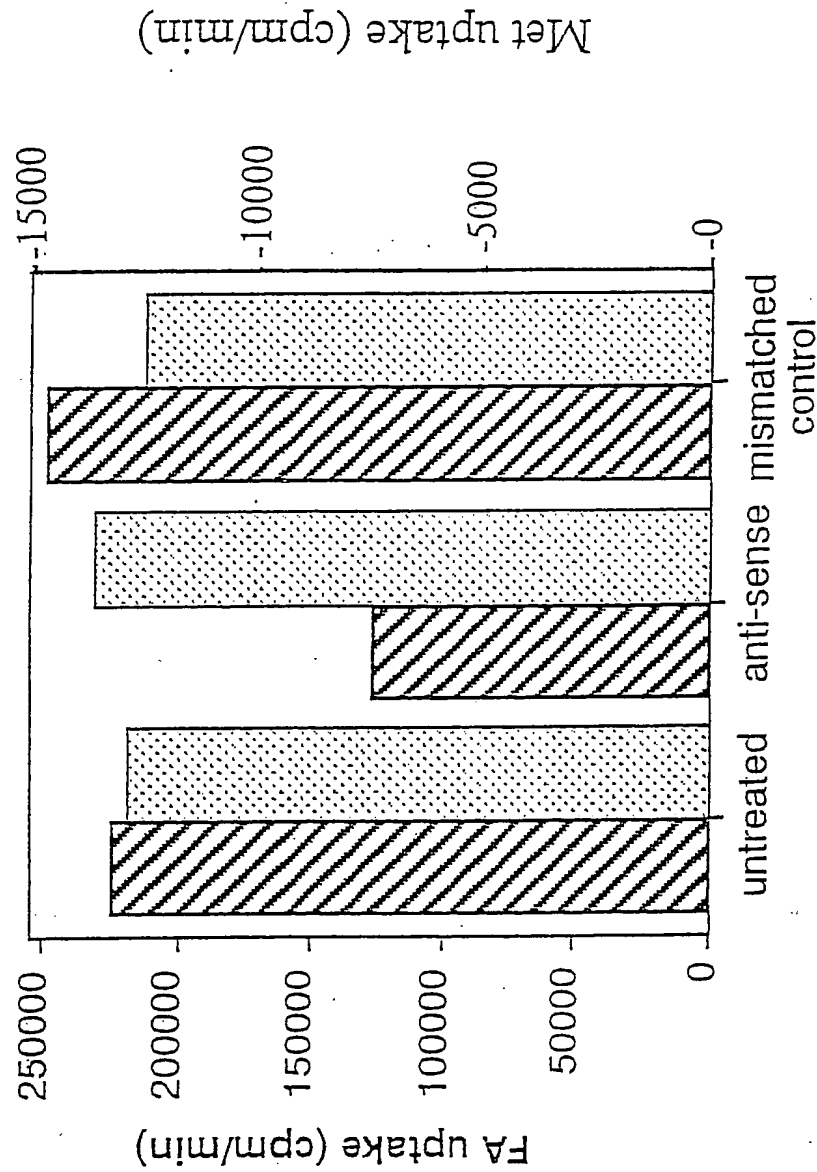


FIG. 42



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mmFATP4 DNA sequence

ATGCTGCTTGGAGCCTCTCTGGTGGGGGCGCTACTGTTCTCCAAGC  
TAGTGCTGAAGCTGCCCTGGACCCAGGTGGGATTCTCCCTGTTGCT  
CCTGTA CTTGGGGTCTGGTGGCTGGCGTTTCATCCGGGTCTTCATC  
AAGACGGTCAGGAGAGATATCTTTGGTGGCATGGTGCTCCTGAAGG  
TGAAGACCAAGGTGCGACGGTACCTTCAGGAGCGGAAGACGGTGCC  
CCTGCTGTTTGCTTCAATGGTACAGCGCCACCCGGACAAGACAGCC  
CTGATTTTTCGAGGGCACAGACACTCACTGGACCTTCCGCCAGCTGG  
ATGAGTACTCCAGTAGTGTGGCCAACTTCCTGCAGGCCCGGGGCCT  
GGCCTCAGGCAATGTAGTTGCCCTCTTTATGGA AAACCGCAATGAG  
TTTGTGGGTCTGTGGCTAGGCATGGCCAAGCTGGGCGTGGAGGCGG  
CTCTCATCAACACCAACCTTAGGCGGGATGCCCTGCGCCACTGTCT  
TGACACCTCAAAGGCACGAGCTCTCATCTTTGGCAGTGAGATGGCC  
TCAGCTATCTGTGAGATCCATGCTAGCCTGGAGCCCACTCAGCC  
TCTTCTGCTCTGGATCCTGGGAGCCCAGCACAGTGCCCGTCAGCAC  
AGAGCATCTGGACCCTCTTCTGGAAGATGCCCCGAAGCA CCTGCCC  
AGTCACCCAGACAAGGGT TTTACAGATAAGCTCTTCTACATCTACA  
CATCGGGCACCAACGGGGCTACCCAAAGCTGCCATTGTGGTGCACAG  
CAGGTATTATCGTATGGCTTCCCTGGTGTACTATGGATTCCGCATG  
CGGCCTGATGACATTGTCTATGACTGCCTCCCCCTCTACCACTCAA  
GCAGGAAACATCGTGGGGATTGGCAGTGCTTACTCCACGGGCATGAC  
TGTGGTGATCCGGAAGAAGTTCTCAGCCTCCCGGTTCTGGGATGAT  
TGTATCAAGTACA ACTGCACAGTGGTACAGTACATTGGCGAGCTCT  
GCCGCTACCTCCTGAACCAGCCACCCCGTGAGGCTGAGTCTCGGCA  
CAAGGTGCGCATGGCACTGGGCAACGGTCTCCGGCAGTCCATCTGG  
ACCGACTTCTCCAGCCGTTTCCACATCCCCCAGGTGGCTGAGTTCT  
ATGGGGCCCACTGAATGCAACTGTAGCCTGGGCAACTTTGACAGCCG  
GGTGGGGGCTGTGGCTTCAATAGCCGCATCCTGTCCTTTGTGTAC  
CCTATCCGTTTGGTACGTGTCAATGAGGATACCATGGA ACTGATCC  
GGGGACCCGATGGAGTCTGCATTCCCTGTCAACCAGGTCAGCCAGG  
CCAGCTGGTGGGTGCGCATCATCCAGCAGGACCCTCTGCGCCGTTTC

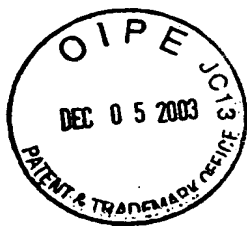
FIG. 43A



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

GACGGGTACCTCAACCAGGGTGCCAACAACAAGAAGATTGCTAATG  
ATGTCTTCAAGAAGGGGGACCAAGCCTACCTCACTGGTGACGTCCT  
GGTGATGGATGAGCTGGGTTACCTGTACTTCCGAGATCGCACTGGG  
GACACGTTCCGCTGGAAAGGGGAGAATGTATCTACCACTGAGGTGG  
AGGGCACACTCAGCCGCCTGCTTCATATGGCAGATGTGGCAGTTTA  
TGGTGTTGAGGTGCCAGGAAGTGAAGGCCGAGCAGGAATGGCTGCC  
GTTGCAAGTCCCATCAGCAACTGTGACCTGGAGAGCTTTGCACAGA  
CCTTGAAAAAGGAGCTGCCTCTGTATGCCCCGCCCATCTTCCTGCG  
CTTCTTGCTGAGCTGCACAAGACAGGGACCTTCAAGTTCAGAAAG  
ACAGAGTTGCGGAAGGAGGGCTTTGACCCATCTGTTGTGAAAGACC  
CGCTGTTCTATCTGGATGCTCGGAAGGGCTGCTACGTTGCACTGGA  
CCAGGAGGCCTATACCCGCATCCAGGCAGGCGAGGAGAAGCTGTGA  
TTTCCCCCTACATCCCTCTGAGGGCCAGAAGATGCTGGATTGAGAG  
CCCTAGCGTCCACCCAGAGGGTCCTGGGCAATGCCAGACCAAAGC  
TAGCAGGGCCCCGCACCTCCGCCCTAGGTGCTGATCTCCCTCTCC  
CAAAGTGCCAAGTGACTCACTGCCGCTTCCCCGACCCTCCAGAGGC  
TTTCTGTGAAAGTCTCATCCAAGCTGTGTCTTCTGGTCCAGGCGTG  
GCCCCCTGGCCCCAGGGTTTCTGATAGGCTCCTTTAGGATGGTATCT  
TGGGTCCAGCGGGCCAGGGTGTGGGAGAGGAGTCACTAAGATCCCT  
CCAATCAGAAGGGAGCTTACAAAGGAACCAAGGCAAAGCCTGTAGA  
CTCAGGAAGCTAAGTGGCCAGAGACTATAGTGGCCAGTCATCCCAT  
GTCCACAGAGGATCTTGGTCCAGAGCTGCCAAAGTGTACCTCTCC  
CTGCCTGCACCTCTGGGGAAAAGAGGACAGCATGTGGCCACTGGGC  
ACCTGTCTCAAGAAGTCAGGATCACACACTCAGTCCTTGTTTCTCC  
AGGTTCCCTTGTTCTTGTCTCGGGGAGGGAGGGACGAGTGTCTGT  
CTGTCCTTCCTGCCTGTCTGTGAGTCTGTGTTGCTTCTCCATCTGT  
CCTAGCCTGAGTGTGGGTGGAACAGGCATGAGGAGAGTGTGGCTCA  
GGGGCCAATAAACTCTGCCTTGACTCCTCTTAAAAAAAAAAAAAAAA  
AA

FIG. 43B

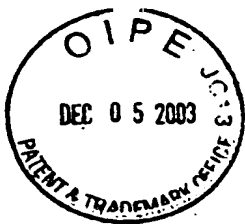


Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

mmFATP4 protein sequence

MLLGASLVGALLFSKLVCLKLPWTQVGFSLLLLLYLGSGGWRFIRVFI  
KTVRRDIFGGMVLLKVKTKVRRYLQERKTVPLLFASMVQRHPDKTA  
LIFEGTDTHWTFRQLDEYSSSVANFLQARGLASGNVVALFMENRNE  
FVGLWLGMAKLGVEAALINTNLRRDALRHCLDTSKARALIFGSEMA  
SAICEIHASLEPTLSLFCSGSWEPSTVPVSTEHLDPILLEDAPKHL P  
SHPDKGFTDKLFYIYTS GTTGLPKAAIVVHSRYR MASLVYYGFRM  
RPDDIVYDCLPLYHSSRKHRGDWQCLLHG MTVVIRKKFSASRFWDD  
CIKYNCTVVQYIGELCRYLLNQPPREAESRHKVRMALGNGLRQSIW  
TDFSSRFHIPQVAEFYGATECNC SLGNFDSRVGACGFNSRILSFVY  
PIRLVRVNEDTMELIRGPDGVCIPCQPGQPGQLVGR IIQQDPLRRF  
DGYLNQGANNKKIANDVFKKGDQAYLTGDVL VMDELGYLYFRDRTG  
DTRWKGENVSTTEVEGTLSRLLHMADVAVYGVEVPGTEGRAGMAA  
VASPISNCDLESFAQTLKKELPLYARPIFLRFLPELHKTGT FKFQK  
TELKKEGFDPSVVKDPLFYLDARKGCYVALDQEAYTRI QAGEEKL

FIG. 43C



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

hsFATP1 full length DNA

```

      10      20      30      40
      |      |      |      |
TCGACCCACGGCGTCCGGGACCCCAAAGCAGAAGCCCGCA 40
CAGTAGGCACAGCGCACCCCAAGAAGGGTCCAGGAGTCTGC 80
AGAAACAGAAAGGTCCCCGGCCTCAGCCTCCTAGTCCCTG 120
CCTGCCTCCTGCCTGAGCTTCTGGGAGACTGAAGGCACGG 160
CTTGCAGCTTCAGGATGCGGGCTCCGGGTGCGGGCGCGGC 200

      210      220      230      240
      |      |      |      |
CTCGGTGGTCTCGCTGGCGCTGTTGTGGCTGCTGGGGCTG 240
CCGTGGACCTGGAGCGCGGCAGCGGCGCTCGGCGTGTACG 280
TGGGCAGCGGCGGCTGGCGCTTCTGCGCATCGTCTGCAA 320
GACCGCGAGGCGAGACCTCTTCGGTCTCTCTGTGCTGATC 360
CGCGTGCGCCTGGAGCTGCGGCGGCACCAGCGTGCCGGCC 400

      410      420      430      440
      |      |      |      |
ACACCATCCCGCGCATCTTTCAGGCGGTAGTGCAGCGACA 440
GCCCGAGCGCCTGGCGCTGGTGGATGCCGGGACCGGCGAG 480
TGCTGGACCTTTGCGCAGCTGGACGCCTACTCCAATGCGG 520
TAGCCAACCTCTTCCGCCAGCTGGGCTTCGCGCCGGGCGA 560
CGTGGTGGCCATCTTCTGGAGGGCCGGCCGGAGTTCTGTG 600

      610      620      630      640
      |      |      |      |
GGGCTGTGGCTGGGCCTGGCCAAGGCGGGCATGGAGGCCG 640
CGCTGCTCAACGTGAACCTGCGGCGCGAGCCCCTGGCCTT 680
CTGCCTGGGCACCTCGGGCGCTAAGGCCCTGATCTTTGGA 720
GGAGAAATGGTGGCGGCGGTGGCCGAAGTGAGCGGGCATC 760
TGGGGAAAAGTTTGATCAAGTTCTGCTCTGGAGACTTGGG 800

      810      820      830      840
      |      |      |      |
GCCCGAGGGCATCTTGCCGGACACCCACCTCCTGGACCCG 840
CTGCTGAAGGAGGCCTCTACTGCCCCCTTGGCACAGATCC 880
CCAGCAAGGGCATGGACGATCGTCTTTTCTACATCTACAC 920
GTCGGGGACCACCGGGCTGCCCAAGGCTGCCATTGTCTGT 960
CACAGCAGGTACTACCGCATGGCAGCCTTCGGCCACCACG 1000

      1010      1020      1030      1040
      |      |      |      |
CCTACCGCATGCAGGCGGCTGACGTGCTCTATGACTGCCT 1040
GCCCTGTACCACTCGGCAGGAAACATCATCGGCGTGGGG 1080
CAGTGTCTCATCTATGGGCTGACAGTCGTCCTCCGCAAGA 1120
AATTCTCGGCCAGCCGCTTCTGGGACGACTGCATCAAGTA 1160
CAACTGCACGGTGGTTTCAGTACATCGGGGAGATCTGCCGC 1200

```

FIG. 44A



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

1210 1220 1230 1240  
TACCTGCTGAAGCAGCCGGTGC GCGAGGCGGAGAGGCGAC 1240  
ACCGCGTGCGCCTGGCGGTGGGGAACGGGCTGCGTCCTGC 1280  
CATCTGGGAGGAGTTACAGGAGCGCTTCGGCGTACGCCAA 1320  
ATCGGGGAGTTCTACGGCGCCACCGAGTGCAACTGCAGCA 1360  
TTGCCAACATGGACGGCAAGGTCGGCTCCTGTGGTTTCAA 1400  
1410 1420 1430 1440  
CAGCCGCATCCTGCCCCACGTGTACCCCATCCGGCTGGTG 1440  
AAGGTCAATGAGGACACAATGGAGCTGCTGCGGGATGCC 1480  
AGGGCCTCTGCATCCCCTGCCAGGCCGGGGAGCCTGGCCT 1520  
CCTTGTGGGTGAGATCAACCAACAGGACCCGCTGCGCCGC 1560  
TTCGATGGCTATGTCAGCGAGAGCGCCACCAGCAAGAAGA 1600  
1610 1620 1630 1640  
TCGCCCACAGCGTCTTCAGCAAGGGCGACAGCGCCTACCT 1640  
CTCAGGTGACGTGCTAGTGATGGATGAGCTGGGCTACATG 1680  
TACTTCCGGGACCGTAGCGGGGACACCTTCCGCTGGCGAG 1720  
GGGAGAACGTCTCCACCACCGAGGTGGAGGGCGTGCTGAG 1760  
CCGCCTGCTGGGCCAGACAGACGTGGCCGTCTATGGGGTG 1800  
1810 1820 1830 1840  
GCTGTTCCAGGAGTGGAGGGTAAGGCAGGGATGGCGGCCG 1840  
TCGCAGACCCCCACAGCCTGCTGGACCCCAACGCGATATA 1880  
CCAGGAGCTGCAGAAGGTGCTGGCACCCCTATGCCCGGCC 1920  
ATCTTCCTGCGCCTCCTGCCCCAGGTGGACACCACAGGCA 1960  
CCTTCAAGATCCAGAAGACGAGGCTGCAGCGAGAGGGCTT 2000  
2010 2020 2030 2040  
TGACCCACGCCAGACCTCAGACCGGCTCTTCTTCCTGGAC 2040  
CTGAAGCAGGGCCACTACCTGCCCTTAAATGAGGCAGTCT 2080  
ACACTCGCATCTGCTCGGGCGCCTTCGCCCTCTGAAGCTG 2120  
TTCCTCTACTGGCCACAACTCTGGGCCTGGTGGGAGAGG 2160  
CCAGCTTGAGCCAGACAGCGCTGCCAGGGGTGGCCGCCT 2200

FIG. 44B





Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

```

      2610      2620      2630      2640
      +-----+-----+-----+-----+
GGTCAGGCTGGTCTTGAACCTCCTGACCTCAGGTGATCCGC 2640
TGGCCTCGGCCTCCCAGAGTGCTGGGATTATAGGCGTGAG 2680
CCTCTGGCCCCGGCCTTTCTTTTCTCTCCTCTCCTGCC 2720
GAGAGTGGAACACACGTGTCCTGGGAGCTGCATCTTGTGT 2760
AGGGTCCAGCTGCTTTTGGGGACTGCAGGAATCATCTCCC 2800

      2810      2820      2830      2840
      +-----+-----+-----+-----+
CTGGGCCCTGGACTCGGACTGGGGCCTCCCCACCTCCCTC 2840
TCGGCTGTGCCTTACGGAGCCCCAATCCAGGCCTCCTGTG 2880
GCTGTTGGGTTCCAGATGCTGCAGCTCCATGTGACTTCCA 2920
AGCAGGCCCTCCGCCCTCCCTGCTGAATGGAGGAGCCGGG 2960
GGTCCCCCAGGCCAACTGGAAAATCTCCCAGGCTAGGCCA 3000

      3010      3020      3030      3040
      +-----+-----+-----+-----+
ATTGCCTTTTGCACCTTCCCCGTTTCTGTACATTTCCCA 3040
GCCCCACCTTCCCCTCCTGATGCCCTGAAAGCTTCCGGAA 3080
TTGACTGTGACCACTTGGATGTCACCACTGTCAGCCCCTG 3120
CCTTGATGTCCCCATTTAGCCATCTCCATGGAGCTCCTGC 3160
TGGAGGGCCCTGAACCCTGCACTGCGTGGCTGCCAGCCA 3200

      3210      3220      3230      3240
      +-----+-----+-----+-----+
GCTGCCTCCTGTCCTGGGAGGAGGCCTCCTGGGTGTCCTC 3240
ATCTGGTGTGTCTACTGGAGGGTCCCACAGGAGAGGCAGC 3280
AGAGGGGTGAGGGGAGGTCTCCTGCCGGGGGTTGGCCTCT 3320
CAAGCCTCAGGGGTCTAGCCTGTTGAATATACCCACCT 3360
GGTGGGTGGCCCCCTCCGATGTCCCCACTGATGGCTCTGAC 3400

      3410      3420      3430      3440
      +-----+-----+-----+-----+
ACCGTGTTGGTGGCGATGTCCCAGACAATCCCACCAGGAC 3440
GGCCCAGACATCCCTACTGGCTTCGCTGGTGGCTCATCTC 3480
GAACATCCACGCCAGCCTTTCTGGGGCCGGCCACCCAGGC 3520
CGCCTGTCCGTCTGTCTCCTCCCTCCAGCAGCACCCCTGGC 3560
CCCTGGAGTGGTGGGGCCATGGCAAGAGACACCGTGGCGT 3600

      3610      3620      3630      3640
      +-----+-----+-----+-----+
CTCATGTGAACTTTCTTGGGCACTGTGGTTTTATTTCCTA 3640
ATTGATTTAAGAAATAAACCTGAAGACCGTCTGGTGAAAA 3680
AAAAAAAAAAAAAA 3694

```

FIG. 44C



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

2610	2620	2630	2640
GGTCAGGCTGGTCTTGAACCTCCTGACCTCAGGTGATCCGC 2640			
TGGCCTCGGCCTCCCAGAGTGCTGGGATTATAGGCGTGAG 2680			
CCTCTGGCCCCGGCCTTTTCTTTTCTCTCCTCTCCTGCC 2720			
GAGAGTGGAACACACGTGTCCTGGGAGCTGCATCTTGTGT 2760			
AGGGTCCAGCTGCTTTTGGGGACTGCAGGAATCATCTCCC 2800			
2810	2820	2830	2840
CTGGGGCCCTGGACTCGGACTGGGGCCTCCCCACCTCCCTC 2840			
TCGGCTGTGCCTTACGGAGCCCCAATCCAGGCCTCCTGTG 2880			
GCTGTTGGGTTCCAGATGCTGCAGCTCCATGTGACTTCCA 2920			
AGCAGGCCCTCCGGCCCTCCCTGCTGAATGGAGGAGCCGGG 2960			
GGTCCCCCAGGCCAACTGGAAAATCTCCCAGGCTAGGCCA 3000			
3010	3020	3030	3040
ATTGCCTTTTGCACCTTCCCCGTTCTGTGACATTTCCCCA 3040			
GCCCCACCTTCCCCCTCCTGATGCCCTGAAAGCTTCCGGAA 3080			
TTGACTGTGACCACTTGGATGTCACCACTGTCAGCCCCCTG 3120			
CCTTGATGTCCCCATTTAGCCATCTCCATGGAGCTCCTGC 3160			
TGGAGGGCCCTGAACCCTGCACTGCGTGGCTGCCAGCCA 3200			
3210	3220	3230	3240
GCTGCCTCCTGTCTCTGGGAGGAGGCCTCCTGGGTGTCTC 3240			
ATCTGGTGTGTCTACTGGAGGGTCCCACAGGAGAGGCAGC 3280			
AGAGGGGTCAGGGGAGGTCTCCTGCCGGGGGTTGGCCTCT 3320			
CAAGCCTCAGGGGTTCTAGCCTGTTGAATATACCCACCT 3360			
GGTGGGTGGCCCCCTCCGATGTCCCCACTGATGGCTCTGAC 3400			
3410	3420	3430	3440
ACCGTGTTGGTGGCGATGTCCCAGACAATCCCACCAGGAC 3440			
GCCCCAGACATCCCTACTGGCTTCGCTGGTGGCTCATCTC 3480			
GAACATCCACGCCAGCCTTTCTGGGGCCGGCCACCCAGGC 3520			
CGCCTGTCCGTCTGTCTCCTCCCTCCAGCAGCACCCCTGGC 3560			
CCCTGGAGTGGTGGGGCCATGGCAAGAGACACCGTGGCGT 3600			
3610	3620	3630	3640
CTCATGTGAACTTTCTGGGCACTGTGGTTTTATTTCCTA 3640			
ATTGATTTAAGAAATAAACCTGAAGACCGTCTGGTGAAAA 3680			
AAAAAAAAAAAAA 3694			

FIG. 44D



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

hsFATP1 full length protein

```

      10      20      30      40
      |-----|-----|-----|-----|
MRAPGAGAASVVSLLALLWLLGLPWTWSAAAALGVYVGSGG 40
WRFLRIVCKTARRDLFGLSVLIRVRLELRRHQRAGHTIPR 80
IFQAVVQRQPERLALVDAGTGECWTFQAQLDAYSNVANLF 120
RQLGFAPGDVVAIFLEGRPEFVGLWLGLAKAGMEAALLNV 160
NLRREPLAFCLGTSGAKALIFGGEMVAAVAEEVSGHLGKSL 200
      210      220      230      240
      |-----|-----|-----|-----|
IKFCSGDLGPEGILPDTHLLDPLLKEASTAPLAQIPSKGM 240
DDRLFYIYTS GTTGLPKAAIVVHSRYRMAAFGHHAYRMO 280
AADVLYDCLPLYHSAGNIIGVGQCLYGLTVVLRKKFSAS 320
RFWDDCIKYNCTVVQYIGEICRYLLKQPVREAERRHRVRL 360
AVGNGLRPAIWEEFTERFGVRQIGEFYGATECNCSIANMD 400
      410      420      430      440
      |-----|-----|-----|-----|
GKVGSCGFNSRILPHVYPIRLVKVNEDTMELLRDAQGLCI 440
PCQAGEPGLLVGQINQODPLRRFDGYVSESATSKKIAHSV 480
FSKGDSAYLSGDVLYMDELGYMYFRDRSGDTFRWRGENVS 520
TTEVEGVLSRLLGQTDVAVYGVAVPGVEGKAGMAAVADPH 560
SLLDPNAIYQELQKVLAPYARPIFLRLLPQVDTTGTFKIQ 600
      610      620      630      640
      |-----|-----|-----|-----|
KTRLQREGFDPRTSDRLFFLDLKGHYLPLNEAVYTRIC 640
SGAFAL 646

```

FIG. 45



Hs VLACS full length DNA

```

      10      20      30      40
      |      |      |      |
GGAATTCCAAAAAATAACGACTACACCTGCTCCGG 40
AGCCCGCGGCGGTACCTGCAGCGGAGGAGCTCTGTCTTCC 80
CCTTCATCTCACGCGAGCCCGGCGTCCCGCCGCGTGCGCC 120
CCGGCGCAGCCCGCCAGTCCGCCCGGAGCCCGCCAGTCG 160
CCGCGCTGCACGCCCGGGGTGAACCCTCTGCCCTCGCTGG 200
      210      220      230      240
      |      |      |      |
GACAGAGGGCCCCGCAGCCGTCATGCTTTCCGCCATCTAC 240
ACAGTCCTGGCGGGACTGCTGTTTCTGCCGCTCCTGGTGA 280
ACCTCTGCTGCCCATACTTCTTCCAGGACATAGGCTACTT 320
CTTGAAGGTGGCCGCCGTGGGCGGAGGGTGCGCAGCTAC 360
GGGCAGCGGCGGCCGGCGCGCACCATCCTGCGGGCGTTCC 400
      410      420      430      440
      |      |      |      |
TGGAGAAAGCGCGCCAGACGCCACACAAGCCTTTTCTGCT 440
CTTCCGCGACGAGACTCTCACCTACGCGCAGGTGGACCGG 480
CGCAGCAATCAAGTGGCCCGGGCGCTGCACGACCACCTCG 520
GCCTGCGCCAGGGAGACTGCGTGGCGCTCCTTATGGGTAA 560
CGAGCCGGCCTACGTGTGGCTGTGGCTGGGGCTGGTGAAG 600
      610      620      630      640
      |      |      |      |
CTGGGCTGTGCCATGGCGTGCCTCAATTACAACATCCGCG 640
CGAAGTCCCTGCTGCACTGCTTCCAGTGCTGCGGGGCGAA 680
GGTGCTGCTGGTGTGCGCCAGAACTACAAGCAGCTGTGCGAA 720
GAGATACTGCCAAGCCTTAAAAAAGATGATGTGTCCATCT 760
ATTATGTGAGCAGAACTTCTAACACAGATGGGATTGACTC 800
      810      820      830      840
      |      |      |      |
TTTCCTGGACAAAGTGGATGAAGTATCAACTGAACCTATC 840
CCAGAGTCATGGAGGTCTGAAGTCACTTTTTTCCACTCCTG 880
CCTTATACATTTATACTTCTGGAACCACAGGTCTTCCAAA 920
AGCAGCCATGATCACTCATCAGCGCATATGGTATGGAAC 960
GGCCTCACTTTTGTAAAGCGGATTGAAGGCAGATGATGTCA 1000
      1010      1020      1030      1040
      |      |      |      |
TCTATATCACTCTGCCCTTTTACCACAGTGCTGCACTACT 1040
GATTGGCATTACGGATGTATTGTGGCTGGTGCTACTCTT 1080
GCCTTGCGGACTAAATTTTTCAGCCAGCCAGTTTTTGGGATG 1120
ACTGCAGAAAATACAACGTCAGTGTCAATTCAGTATATCGG 1160
TGAAGTGTTCGGTATTTATGCAACTCACCACAGAAACCA 1200

```

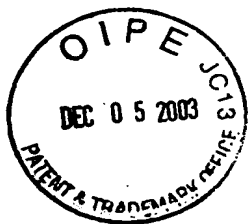
FIG. 46A



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

1210 1220 1230 1240  
AATGACCGTGATCATAAAGTGAGACTGGCACTGGGAAATG 1240  
GCTTACGAGGAGATGTGTGGAGACAATTTGTCAAGAGATT 1280  
TGGGGACATATGCATCTATGAGTTCTATGCTGCCACTGAA 1320  
GGCAATATTGGATTTATGAATTATGCGAGAAAAAGTTGGTG 1360  
CTGTTGGAAGAGTAAACTACCTACAGAAAAAATCATAAC 1400  
1410 1420 1430 1440  
TTATGACCTGATTAAATATGATGTGGAGAAAGATGAACCT 1440  
GTCCGAGATGAAAATGGATATTGCGTCAGAGTTCCCAAAG 1480  
GTGAAGTTGGACTTCTGGTTTGCAAAATCACACAACCTAC 1520  
ACCATTTAATGGCTATGCTGGAGCAAAGGCTCAGACAGAG 1560  
AAGAAAAAAGTGAAGAGATGCTTTAAGAAAGGAGACCTCT 1600  
1610 1620 1630 1640  
ATTTCAACAGTGGAGATCTCTTAATGGTTGACCATGAAAA 1640  
TTTCATCTATTTCCACGACAGAGTTGGAGATACATTCCGG 1680  
TGGAAGGGGGAAAATGTGGCCACCACTGAAGTTGCTGATA 1720  
CAGTTGGACTGGTTGATTTTGTCCAAGAAGTAAATGTTTA 1760  
TGGAGTGCATGTGCCAGATCATGAGGGTCGCATTGGCATG 1800  
1810 1820 1830 1840  
GCCTCCATCAAAATGAAAGAAAACCATGAATTTGATGGAA 1840  
AGAAACTCTTTTCAGCACATTGCTGATTACCTACCTAGTTA 1880  
TGCAAGGCCCCCGGTTTCTAAGAATACAGGACACCATTGAG 1920  
ATCACTGGAACCTTTTAAACACCGCAAAATGACCCTGGTGG 1960  
AGGAGGGCTTTAACCCTGCTGTCATCAAAGATGCCTTGTA 2000  
2010 2020 2030 2040  
TTTCTTGGATGACACAGCAAAAATGTATGTGCCTATGACT 2040  
GAGGACATCTATAATGCCATAAGTGCTAAAACCCTGAAAC 2080  
TCTGAATATTCCCAGGAGGATAACTCAACATTTCCAGAAA 2120  
GAAACTGAATGGACAGCCACTTGATATAATCCAACCTTTAA 2160  
TTTGATTGAAGATTGTGAGGAAATTTGTAGGAAATTTGC 2200  
2210 2220 2230 2240  
ATACCCGTAAAGGGGAGACTTTTTTAAATAACAGTTGAGTC 2240  
TTTGCAAGTAAAAAGATTTAGAGATTATTATTTTTCAGTG 2280  
TGCACCTACTGTTTGTATTTGCAAACTGAGCTTGTTGGAG 2320  
GGAAGGCATTATTTTTTAAATACTTAGTAAATTAAATGA 2360  
AC 2362

FIG. 46B



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

hs VLACS full length protein

10 20 30 40  
MLSAIYTVLAGLLFLPLLVLNLCPPYFFQDIGYFLKVA AVG 40  
RRVRSYGQRRPARTILRAFLEKARQTPHKPFLLFRDET LT 80  
YAQVDRRSNQVARALHDHLGLRQGDVALLMGNEPAYVWL 120  
WGLVYKLGCMACLNYNIRAKSLLHCFQCCGAKVLLVSPE 160  
LQAAVEEILPSLKKDDVSIYYVSRTSNTDGD SFLDKVDE 200  
210 220 230 240  
VSTEP IPESWRSEVTFSTPALYIYTS GTTGLPKAAMITHQ 240  
RIWYGTGLTFVSGLKADDVIYITLPFYHSAALLIGIHGCI 280  
VAGATLALRTKFSASQFWDDCRKYNVTVIQYIGELLRYLC 320  
NSPQKPNDRDHKYRLALGNGLRGDVWROFVKRFGDICIYE 360  
FYAATEGNIGFMNYARKVGAVGRVNYLQKKIITYDLIKYD 400  
410 420 430 440  
VEKDEPVRDENG YCVRVPKG EVGLLVCKITQLTPFNGYAG 440  
AKAQTEKKKL RDVFKKGDLYFNSGDLLMVDHENFIYFHDR 480  
VGDTFRWKGEN VATTEVADTVGLVDFVQEVNVYGVHVPDH 520  
EGRIGMASIKM KENHEFDGKKLFQHIADYLP SYARPRFLR 560  
IQDTIEITGTFK H RKM TLVEEGFNPAVIKDALYFLDDTAK 600  
610 620 630 640  
MYVPMTEDIYNA ISAKTLKL 620

FIG. 47



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

hsFATP3 partial DNA

```

      10      20      30      40
      |      |      |      |
AAGTTCTCGGCTGGTCAGTTCTGGGAAGATTGCCAGCAGC 40
ACAGGGTGACGGTGTTCCAGTACATTGGGGAGCTGTGCCG 80
ATACCTTGTCAACCAGCCCCGAGCAAGGCAGAACGTGGC 120
CATAAGGTCCGGCTGGCAGTGGGCAGCGGGCTGCGCCCAG 160
ATACCTGGGAGCGTTTTTGTGCGGCGCTTCGGGCCCCCTGCA 200

      210      220      230      240
      |      |      |      |
GGTGCTGGAGACATATGGACTGACAGAGGGCAACGTGGCC 240
ACCATCAACTACACAGGACAGCGGGGCGCTGTGGGGCGTG 280
CTTCCTGGCTTTTACAAGCATATCTTCCCCTTCTCCTTGAT 320
TCGCTATGATGTCACCACAGGAGAGCCAATTGCGGACCCC 360
CAGGGGCACTGTATGGCCACATCTCCAGGTGAGCCAGGGC 400

      410      420      430      440
      |      |      |      |
TGCTGGTGGCCCCGGTAAGCCAGCAGTCCCCATTCCTGGG 440
CTATGCTGGCGGGCCAGAGCTGGCCCAGGGGAAGTTGCTA 480
AAGGATGTCTTCCGGCCTGGGGATGTTTTCTTCAACACTG 520
GGGACCTGCTGGTCTGCGATGACCAAGGTTTTCTCCGCTT 560
CCATGATCGTACTGGAGACACCTTCAGGTGGAAGGGGGAG 600

      610      620      630      640
      |      |      |      |
AATGTGGCCACAACCGAGGTGGCAGAGGTCTTCGAGGCC 640
TAGATTTTCTTCAGGAGGTGAACGTCTATGGAGTCACTGT 680
GCCAGGGCATGAAGGCAGGGCTGGAATGGCAGCCCTAGTT 720
CTGCGTCCCCCCCCACGCTTTGGACCTTATGCAGCTCTACA 760
CCCACGTGTCTGAGAACTTGCCACCTTATGCCCCGGCCCCG 800

      810      820      830      840
      |      |      |      |
ATTCCTCAGGCTCCAGGAGTCTTTGGCCACCACAGAGACC 840
TTCAAACAGCAGAAAGTTTCGGATGGCAAATGAGGGCTTCG 880
ACCCCAGCACCTGTCTGACCCACTGTACGTTCTGGACCA 920
GGCTGTAGGTGCCTACCTGCCCCCTCACAACCTGCCCGGTAC 960
AGCGCCCTCCTGGCAGGAAACCTTCGAATCTGAGAACTTC 1000

      1010      1020      1030      1040
      |      |      |      |
CACACCTGAGGCACCTGAGAGAGGAACTCTGTGGGGTGGG 1040
GGCCGTTGCAGGTGTACTGGGCTGTCAGGGATCTTTTCTA 1080
TACCAGAACTGCGGTCACTATTTTGTAAATAAATGTGGCTG 1120
GAGCTGATCCAGCTGTCTCTGACAAAAAAAAAAAAAAAAAA 1160
AAAGGGCGGCCGC 1173

```

FIG. 48



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

hsFATP3 partial protein

10	20	30	40
KFSAGQFWEDCQOHRVTVFQYIGELCRYLVNQPPSKAERG 40			
HKVRLAVGSGLRPDTWERFVRRFGPLQVLETYGLTEGNVA 80			
TINYTGORGAVGRASWLYKHIFPFLIRYDVTTGEPIRD 120			
QGHCMATSPGEPGLLVAPVSQOSPFLGYAGGPPELAQKLL 160			
KDVFRPGDVFFNTGDLLVCDDQGFLRFHRTGDTFRWKGE 200			
210	220	230	240
NVATTEVAEVFEALDFLOEVNVYGVTVPGHEGRAGMAALV 240			
LRPPHALDLMQLYTHYSENLPYARPRFLRLQESLATTET 280			
FKQQKVRMANEGFDPSTLSPLYVLDQAVGAYLPLTTARY 320			
SALLAGNLRI 330			

FIG. 49





Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet



hsFATP4 full length

10 20 30 40  
CGACCCACGCGTCCGGGCGGGCGGGGCCGGGCGGGCGGGCG 40  
GGGCTGGCGGGGCGGGCGGGCCATGCAGGGCGCAGAGCCG 80  
GCTAAACCCTGCTGAGACCCGGCTCCGTGCGTCCAGGGGC 120  
GGCTAATGCCCCCTACGCTGTCTACGCTGCTGCAACCGGG 160  
CCGCATCTGGACGGGGCGCCGCGCGGGAGCCGACGCCG 200  
210 220 230 240  
GGCCACAATGCTGCTTGGAGCCTCTCTGGTGGGGGTGCTG 240  
CTGTTCTCCAAGCTGGTGTGAAACTGCCCTGGACCCAGG 280  
TGGGATTCTCCCTGTTGTTCTCTACTTGGGATCTGGCGG 320  
CTGGCGCTTCATCCGGGTCTTCATCAAGACCATCAGGCGC 360  
GATATCTTTGGCGGCCTGGTCTCTCTGAAGGTGAAGGCAA 400  
410 420 430 440  
AGGTGCGACAGTGCCTGCAGGAGCGGCGGACAGTGCCCAT 440  
TTTGTTCCTCTACCGTTTCGGCGCCACCCCGACAAGACG 480  
GCCCTGATCTTCGAGGGCACAGATACCCACTGGACCTTCC 520  
GCCAGCTGGATGAGTACTCAAGCAGTGTAGCCAACTTCT 560  
GCAGGCCCGGGGCCTGGCCTCGGGCGATGTGGCTGCCATC 600  
610 620 630 640  
TTCATGGAGAACCGCAATGAGTTCGTGGGCCTATGGCTGG 640  
GCATGGCCAAGCTCGGTGTGGAGGCAGCCCTCATCAACAC 680  
CAACCTGCGGCGGGATGCTCTGCTCCACTGCCTCACCACC 720  
TCGCGCGCACGGGCCCCCTTGTCTTTGGCAGCGAAATGGCCT 760  
CAGCCATCTGTGAGGTCCATGCCAGCCTGGACCCCTCGCT 800  
810 820 830 840  
CAGCCTCTTCTGCTCTGGCTCCTGGGAGCCCGGTGCGGTG 840  
CCTCCAAGCACAGAACACCTGGACCCCTCTGCTGAAAGATG 880  
CTCCCAAGCACCTTCCCAGTTGCCCTGACAAGGGCTTCAC 920  
AGATAAACTGTTCTACATCTACACATCCGGCACCACAGGG 960  
CTGCCCAAGGCCCGCCATCGTGGTGCACAGCAGGTATTACC 1000  
1010 1020 1030 1040  
GCATGGCTGCCCTGGTGTACTATGGATTCCGCATGCGGCC 1040  
CAACGACATCGTCTATGACTGCCTCCCCCTCTACCACTCA 1080  
GCAGGAAACATCGTGGGAATCGGCCAGTGCCTGCTGCATG 1120  
GCATGACGGTGGTGAATCGGAAGAAGTTCTCAGCCTCCCG 1160  
GTTCTGGGACGATTGTATCAAGTACAACCTGCACGATTGTG 1200

FIG. 50A



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

1210	1220	1230	1240
CAGTACATTGGTGAACCTGTGCCGCTACCTCCTGAACCAGC 1240			
CACCGCGGGAGGCAGAAAACCAGCACCAGGTTTCGCATGGC 1280			
ACTAGGCAATGGCCTCCGGCAGTCCATCTGGACCAACTTT 1320			
TCCAGCCGCTTCCACATAACCCAGGTGGCTGAGTTCTACG 1360			
GGGCCACAGAGTGCAACTGTAGCCTGGGCAACTTCGACAG 1400			

1410	1420	1430	1440
CCAGGTGGGGGCCTGTGGTTTCAATAGCCGCATCCTGTCC 1440			
TTCGTGTACCCCATCCGGTTGGTACGTGTCAACGAGGACA 1480			
CCATGGAGCTGATCCGGGGGCCCCGACGGCGTCTGCATTCC 1520			
CTGCCAGCCAGGTGAGCCGGGCCAGCTGGTGGGCCGCATC 1560			
ATCCAGAAAGACCCCCTGCGCCGCTTCGATGGCTACCTCA 1600			

1610	1620	1630	1640
ACCAGGGCGCCAACAACAAGAAGATTGCCAAGGATGTCTT 1640			
CAAGAAGGGGGACCAGGCCTACCTTACTGGTGATGTGCTG 1680			
GTGATGGACGAGCTGGGCTACCTGTACTTCCGAGACCGCA 1720			
CTGGGGACACGTTCCGCTGGAAAGGTGAGAACGTGTCCAC 1760			
CACCGAGGTGGAAGGCACACTCAGCCGCCTGCTGGACATG 1800			

1810	1820	1830	1840
GCTGACGTGGCCGTGTATGGTGTGCGAGGTGCCAGGAACCG 1840			
AGGGCCGGGCGGAATGGCTGCTGTGGCCAGCCCCACTGG 1880			
CAACTGTGACCTGGAGCGCTTTGCTCAGGTCTTGGAGAAG 1920			
GAACTGCCCCCTGTATGCGCGCCCCATCTTCCTGCGCCTCC 1960			
TGCCTGAGCTGCACAAAACAGGAACCTACAAGTTCCAGAA 2000			

2010	2020	2030	2040
GACAGAGCTACGGAAGGAGGGCTTTGACCCGGCTATTGTG 2040			
AAAGACCCGCTGTTCTATCTAGATGCCCAGAAGGGCCGCT 2080			
ACGTCCCGCTGGACCAAGAGGCCTACAGCCGCATCCAGGC 2120			
AGGCGAGGAGAAGCTGTGATTCCCCCATCCCTCTGAGGG 2160			
CCGGCGGATGCTGATCCGGAGCCCCAGGTTCCGCCCCAG 2200			

FIG. 50B



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

2210	2220	2230	2240
AGCGGTCCTGGACAAGGCCAGACCAAAGCAAGCAGGGCCT 2240			
GGCACCTCCATCCTGAGGTGCTGCCCCCTCCATCCAAAACCT 2280			
GCCAAGTGACTCATTGCCTTCCCAACCCTTCCAGAGGCTT 2320			
TCTGTGAAAGTCTCATGTCCAAGTTCCGTCTTCTGGGCTG 2360			
GGCAGGCCCTCTGGTTCCCAGGCTGAGACTGACGGGTTTT 2400			

2410	2420	2430	2440
CTCAGGATGATGTCTTGGGTGAGGGTAGGGAGAGGACAAG 2440			
GGGTCACCGAGCCCTTCCCAGAGAGCAGGGAGCTTATAAA 2480			
TGAACCAAGAGCAGAAGTCCCCAGACTCAGGAAGTCAACA 2520			
GAGTGGGCAGGGACAGTGGTAGCATCCATCTGGTGGCCAA 2560			
AGAGAATCGTAGCCCCAGAGCTGCCCAAGTTCACTGGGCT 2600			

2610	2620	2630	2640
CCACCCCCACCTCCAGGAGGGGAGGAGAGGACCTGACATC 2640			
TGTAGGTGGCCCCCTGATGCCCCATCTACAGCAGGAGGTCA 2680			
GGACCACGCCCTGGCCTCTCCCCACTCCCCCATCCTCCT 2720			
CCCTGGGTGGCTGCCTGATTATCCCTCAGGCAGGGCCTCT 2760			
CAGTCCTTGTGGGTCTGTGTACCTCCATCTCAGTCTTGG 2800			

2810	2820	2830	2840
CCTGGCTATGAGGGGAGGAGGAATGGGAGAGGGGGCTCAG 2840			
GGGCCAATAAACTCTGCCTTGAGTCCTCCTAAAAAAAAAA 2880			
AAAAAAAAAAAAAAAAAAAAAAAAAAAAA 2907			

FIG. 50C

hsFATP4 full length protein

```

      10           20           30           40
  MLLGASLVGVLLFSKLVKL PWTQVGF SLLFLYL GSGGWR 40
  FIRVFIKTIRRDIFGGLVLLKVKAKVRQCLOERRTVPILF 80
  ASTVRRHPDKTALIFEGTDTHWTFRQLDEYSSSVANFLQA 120
  RGLASGDVAAIFMENRNEFVGLWLGMAKLGVEAALINTNL 160
  RRDALLHCLTTSRRARLVFGSEMASAICEVHASLDPSLSL 200

      210          220          230          240
  FCSGSWEPGA VPPSTEHL DPLLKDAPK HLPSCPD KGFTDK 240
  LFYIYTS GTTGLPKAAI VVHSRYRMAAL VYYGFRMRPND 280
  IVYDCLPLYHSAGNI VGI GQCL LHGMTV VIRQKFSASRFW 320
  DDCIKYNCTIVQYIGELCRYLLNQPPRE AENCHOVRMALG 360
  NGLRQSIW TNFSSRFHI PQVAEFY GATECNC SLGNFDSQV 400

      410          420          430          440
  GACGFNSRILSFVYPIRLVRVNEDTMELIRGPDGVCIPCO 440
  PGE PGQLVGR I IQKDPLRRFDGYLNQGANNKKIAKDVFKK 480
  GDQAYLTGOVLVMDELGYLYFRDRTGDTFRWKGENVSTTE 520
  VEGTLSRLLDMADVAVYGV E VPGTEGRAGMAAVASPTGNC 560
  DLERFAQVLEKELPLYARPIFLRLLPELHKTGT YKFQKTE 600

      610          620          630          640
  LRKEGFDP AIVKDPLFYLDACKGRYVPLDQEAYSRIQAGE 640
  EKL 643
  
```

FIG. 51



hsFATP5(partial)

GTCGTTGGGATCCTCGGCTGCTTAGATCTCGGAGCCACCTGTGTTCT  
GGCCCCCAAGTTCTCTACTTCCTGCTTCTGGGATGACTGTCGGCAGC  
ATGGCGTGACAGTGATCCTGTATGTGGGCGAGCTCCTGCGATACTTG  
TGTAACATTCCCCAGCAACCAGAGGACCGGACACATACAGTCCGCC  
TGGCAATGGGCAATGGACTACGGGCTGATGTGTGGGGAGACCTTCC  
AGCAGCGTTTCGGTCCTATTTTCGGATCTNGGGAAGTCTTACGGGCTT  
CCACAGAAGGGCAACATGGGGCTTTAGTTCAAATATTGTTGGGGGC  
GCTGCGGGGGCCCTGGGGGCAAAGATGGAGCTTGCCTCCTCCGAATG  
CTGTCCCCCTTTGAGCTGGTGCAGTTCGACATGGAGGCGGCGGAGC  
CTGTGAGGGACAATCAGGGCTTCTGCATCCCTGTAGGGCTAGGGGA  
GCCGGGGCTGCTGTTGACCAAGGTGGTAAGCCAGCAACCCTTCGTG  
GGCTACCGCGGGCCCCCGAGAGCTGTCGGAACGGAAGCTGGTGCGCA  
ACGTGCGGCAATCGGGCGACGTTTACTACAACACCGGGGACGTACT  
GGCCATGGACCGCGAAAGGCTTCCTCTACTTCCGCGACCGACTCGGG  
GACACCTTCCGATGGAAGGGCGAGAACGTGTCCACGCACGAGGTGG  
AGGGCGTGTTGTCGCAGGTGGACTTCTTGCAACAGGTTAACGTGTAT  
GGCGTGTCGTGCCAGGTTGTGAGGGTAAGGTGGGCATGGCTGCTG  
TGGCATTAGCCCCCGGCCAGACTTTCGACGGGGAGAAGTTGTACCA  
GCACGTTTCGCGCTTGGCTCCCTGCCTACGCTACCCCCCATTTTCATCC  
GCATCCAGGACGCCATGGAGGTCACCAGCACGTTCAAACCTGATGAA  
GACCCGGTTGGTGCGTGAGGGGTTCAATGTGGGGATCGTGGTTGAC  
CCTCTGTTTGTACTGGACAACCGGGCCCAGTCCTTCCGGCCCCCTGAC  
GGCAGAAATGTACCAGGCTGTGTGTGAGGGAACCTGGAGGCTCTGA  
TCACCTGGCCAACCCACTGGGGTAGGGATCAAAGCCAGCCACCCCC  
ACCCCAACACACTCGGTGTCCCTTTTCATCCTGGGCCTGTGTGAATCC  
CAGCCTGGCCATACCCTCAACCTCAGTGGGCTGGAAATGACAGTGG  
GCCCTGTAGCAGTGGCAGAATAAACTCAGMTGYGTTACAGAAA

FIG. 52

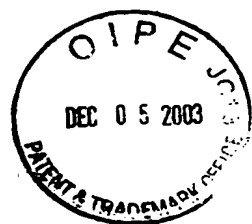


Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

hsFATP5 partial protein

10 20 30 40  
YVGILGCLDLGATCVLAPKFSTSCFWDDCRQHGVTVILYV 40  
GELLRYLCNIPQQPEDRTHTVRLAMGNGLRADVWGDLPAA 80  
FRSYFGSXEVLRASTEGQHGALVOILLGALRGPGGKDGAC 120  
LLRMLSPFELVQFDMEAAEPVRDNQGFVIPVGLGEPGLLL 160  
TKVVSQQPFVGYRGPRELSEKLVARNVROSGDVYYNTGDV 200  
210 220 230 240  
LAMDREGFLYFRDRLGDTFRWKGENVSTHEVEGVLSQVDF 240  
LQQVNVYGVCPGCEGKVGMAAVALAPGQTFDGEKLYQHV 280  
RAWLPAYATPHFIRIQDAMEVTSTFKLMKTRLVREGFNVG 320  
IVVDPLFVLDNRAQSFRLTAEMYQAVCEGTWRL 354

FIG. 53



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

hsFATP6 full length DNA

10 20 30 40  
AACGGCAAGTAAGCGCAACGCAATTAATGTGAGTAGCTCA 40  
CTCATTAGGCACCCCAGGCTTTACACTTTATGCTTCCGGG 80  
CTCGTATGTTGTGTGGAATTGTGAGCGGATACCAATTTCA 120  
CACAGGAACCAGCTATGACATGATTACGAATTTAATACGA 160  
CTCACTATAGGGAATTTGGCCCTCGAGGCCAAGAATTCCG 200  
210 220 230 240  
CACGAGGGGTGCTGAGCCCCCTGCGCGGTTTCTGGTGCGTA 240  
GAGACTGTAAATCGCTGCGCTTCTCAGTCATCATCATCCC 280  
AGCTTTTCCCGGCTCGAATTCAGCCTCCAACCTCAAGCTCG 320  
CGGGAAAGACTACCTGAGAGGAGAAAAGCTTCTGTCCCTG 360  
GACCTTCTTCTGAGGGTGGAGTCGGAGGCTCCCTGCTTTC 400  
410 420 430 440  
CAGCCGCCCAGTGACCCAAGCTTAATCTTCAGCACC ACTT 440  
GGGGCGACCTTTTTCGGTGCAAACCTACGATTCTGTTTCTC 480  
AGGATTCCCTCCCCATCCCGCTTCGCCCCGGAAAAGCTGAC 520  
AAGA ACTTCAGGTGTAAGCCCTGAGTAGTGAGGATCTGCG 560  
GTCTCCGTGGAGAGCTGTGCCTGGAAGAGAAGGACGCTGG 600  
610 620 630 640  
TGGGGGCTGAGATCAGAGCTGTCTTCTGGCCCAGTTGCC 640  
CCATGCTTCTGTGTCATGGCTAACAGTTCTAGGGGCTGGAAT 680  
GGTCGTCTTGC ACTTCTTGCAAGAACTCCTGTTCCCTTAC 720  
TTTTGGGATGACTTCTGGTTCTGTGTTGAAGGTGGTGCTCA 760  
TTATAATTCCGGCTGAAGAAGTATGAAAAGAGAGGGGAGCT 800  
810 820 830 840  
GGTGACTGTGCTGGATAAATTCTTGAGTCATGCCAAAAGA 840  
CAACCTCGGAAACCTTTTCATCATCTATGAGGGAGACATCT 880  
ACACCTATCAGGATGTAGACAAAAGGAGCAGCAGAGTGCC 920  
CCATGTCTTCTGAACCATTCCTCTCTGAAAAAGGGGGAC 960  
ACGGTGGCTCTGCTGATGAGCAATGAGCCGGACTTCGTTT 1000  
1010 1020 1030 1040  
ACGTGTGGTTTCGGCCTCGCCAAGCTGGGCTGCGTGCGTGCC 1040  
CTTTCTCAACACCAACATTTCGCTCCAACCTCCCTCCTGAAT 1080  
TGCATCCGCGCCTGTGGGCCCAGAGCCCTAGTGCGTGCGG 1120  
CAGATTTGCTTGGAAACGGTAGAAGAAATCCTTCCAAGCCT 1160  
CTCAGAAAATATCAGTGTTTGGGGGATGAAAGATTCTGTT 1200

FIG. 54A



hsFATP6 full lenght.DNA

```

      1210      1220      1230      1240
      | | | | | | | | | | | | | | | | | |
CCACAAGGTGTAATTTCACTCAAAGAAAAACTGAGCACCT 1240
CACCTGATGAGCCCGTGCCACGCAGCCACCATGTTGTCTC 1280
ACTCCTCAAGTCTACTTGTCTTTACATTTTACCTCTGGA 1320
ACAACAGGTCTACCAAAAGCAGCTGTGATTAGTCAGCTGC 1360
AGGTTTTAAGGGGTCTGCTGTCCTGTGGGCTTTTGTTG 1400

      1410      1420      1430      1440
      | | | | | | | | | | | | | | | | | |
TACTGCTCATGACATTGTTTATATAACCCTTCCTCTGTAT 1440
CATAGTTCAGCAGCTATCCTGGGAATTTCTGGATGTGTTG 1480
AGTTGGGTGCCACTTGTGTGTTAAAGAAGAAATTTTCAGC 1520
AAGCCAGTTTTGGAGTGA CTGCAAGAAGTATGATGTGACT 1560
GTGTTTCAGTATATTGGAGA ACTTTGTCGCTACCTTTGCA 1600

      1610      1620      1630      1640
      | | | | | | | | | | | | | | | | | |
AACAATCTAAGAGAGAAGGAGAAAAAGGATCATAAGGTGCG 1640
TTTGCCAATTGGAAATGGCATACGGAGTGATGTATGGAGA 1680
GAATTTTGTAGACAGATTTGGAAATATAAAGGTGTGTGAAC 1720
TTTATGCAGCTACCGAATCAAGCATATCTTTCATGAAC TA 1760
CACTGGGAGAATTGGAGCAATTGGGAGAACAAATTTGTTT 1800

      1810      1820      1830      1840
      | | | | | | | | | | | | | | | | | |
TACAACTTCTTTCCACTTTTGACTTAATAAAGTATGACT 1840
TTCAGAAAGATGAACCCATGAGAAATGAGCAGGGTTGGTG 1880
TATTCATGTGAAAAAAGGAGAACCTGGACTTCTCATTTCT 1920
CGAGTGAATGCAAAAAATCCCTTCTTTGGCTATGCTGGGC 1960
CTTATAAGCACACAAAAGACAAATTGCTTTGTGATGTTTT 2000

      2010      2020      2030      2040
      | | | | | | | | | | | | | | | | | |
TAAGAAGGGAGATGTTTACCTTAATACTGGAGACTTAATA 2040
GTCCAGGATCAGGACAATTTCTTTATTTTTGGGACCGTA 2080
CTGGAGACACTTTCAGATGGAAAGGAGAAAATGTCGCAAC 2120
CACTGAGGTTGCTGATGTTATTGGAATGTTGGATTTCATA 2160
CAGGAAGCAAACGTCTATGGTGTGGCTATATCAGGTTATG 2200

      2210      2220      2230      2240
      | | | | | | | | | | | | | | | | | |
AAGGAAGAGCAGGAATGGCTTCTATTATTTTAAACCAAA 2240
TACATCTTTAGATTTGGAAAAAGTTTATGAACAAGTTGTA 2280
ACATTTCTACCAGCTTATGCTTGTCCACGATTTTAAAGAA 2320
TTCAGGAAAAAATGGAAGCAACAGGAACATTCAA CTATT 2360
GAAGCATCAGTTGGTGGGAAGATGGATTTAATCCACTGAAA 2400

      2410      2420      2430      2440
      | | | | | | | | | | | | | | | | | |
ATTTCTGAACCACTTTACTTCATGGATAACTTGAAAAAGT 2440
CTTATGTTCTACTGACCAGGGA ACTTTATGATCAAATAAT 2480
GTTAGGGGAAATAAAACTTTAAGATTTTATATCTAGAAC 2520
TTTCATATGCTTTCTTAGGAAGAGTGAGAGGGGGTATAT 2560
GATTC TTTATGAAATGGGGAAAGGGAGCTAACATTAATTA 2600

```

FIG. 54B



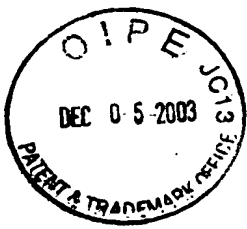


hsFATP6 full lenght.DNA

```

      2610      2620      2630      2640
      | | | | | | | | | | | | | | | | | |
TGCATGTACTATATTTTCCTTAATATGAGAGATAATTTTTT 2640
AATTGCATAAGAATTTTAATTTCTTTTAATTGATATAAAC 2680
ATTAGTTGATTATTCTTTTTATCTATTTGGAGATTCAGTG 2720
CATAACTAAGTATTTTCCTTAATACTAAAGATTTTAAATA 2760
ATAAATAGTGGCTAGCGGTTTGGACAATCACTAAAAATGT 2800
      2810      2820      2830      2840
      | | | | | | | | | | | | | | | | | |
ACTTTCTAATAAGTAAAATTTCTAATTTTGAATAAAAGAT 2840
TAAATTTTACTGAAAAAAAAAAAAAAAAAAAAAATTGGCG 2880
GCCGC 2885
```

FIG. 54C



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

hsFATP6 full length protein

10 20 30 40  
.....  
MLLSWLTVLGAGMVVLHFLQKLLFPYFWDDFWFLKVVL I 40  
IIRLKKEYEKRGELVTVLOKFLSHAKRQPRKPFIIYEGDIY 80  
TYQDVDRSSRVVAHVFLNHSSLLKKGDTVALLMSNEPQFVH 120  
VWFGGLAKLGCYVAFNLNTNIRSNLLNCIRACGPRLVVG A 160  
DLLGTVEEILPSLSENISVWGMKDSVPGGVISLKEKLSTS 200  
210 220 230 240  
.....  
PDEPVPRSHHVVSLLKSTCLYIFTSGTTGLPKAAVISQLQ 240  
VLRGSAVLWAFGCTAHDIVYITLPLYHSSAAILGISGCV E 280  
LGATCVLKKKFSASQFWSOCKKYDVTVFQYIGELCRYLCK 320  
QSKREGEKDHKVRLAIGNGIRSDVWREFLDRFGNIKVC E L 360  
YAATESSISFMNYTGRIGAIGRTNLFYKLLSTFDLIK Y D F 400  
410 420 430 440  
.....  
QKDEPMRNEGGWCIVHKKGEFGLLISRVNAKNFFFGYAGP 440  
YKHTKDKLLCDVFKKGDVYLNLTGDLIVODQDNFLXFW D RT 480  
GDTFRWKGENVATTEVADVIGMLDFICEANVYGVAISG Y E 520  
GRAGMASIILKPNTSLDLEKVYEQVVTFLPAYACPRFL R I 560  
QEKMEATGTFKLLKHQLVEDGFNPLKISEPLYFMDNLK K S 600  
610 620 630 640  
.....  
YVLLTRELYDQIMLGEIKL 619

FIG. 55



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

mFATP1 full length DNA

```

      10      20      30      40
      |      |      |      |
AAGTTCCCACTCCAGACTTCTGCGAGAACCCGTGAGGAAG 40
CAGCGAGAACCAGGGGGTTTGCAAGCCAGAGAAGGATGCGG 80
ACTCCGGGAGCAGGAACAGCCTCTGTGGCCTCATTGGGGC 120
TGCTTTGGCTTCTGGGACTTCCGTGGACCTGGAGCGCGGC 160
GGCGGCGTTCCGGTGTGTACGTGGGTAGCGGTGGCTGGCGA 200

      210      220      230      240
      |      |      |      |
TTTCTGCGTATCGTCTGCAAGACGGCGAGGCGAGACCTCT 240
TTGGCCTCTCTGTTCTGATCCGCGTGCGGCTAGAGCTACG 280
ACGACACCGGCGAGCAGGAGACACGATCCCACGCATCTTC 320
CAGGCCGTGGCCCAGCGACAGCCGGAGCGCCTGGCGCTGG 360
TAGATGCGAGTAGCGGTATCTGCTGGACCTTCGCACAGCT 400

      410      420      430      440
      |      |      |      |
AGACACCTACTCCAATGCTGTGGCCAATCTGTTCCCTCCAG 440
CTGGGCTTTGCGCCAGGCGATGTGGTGGCTGTGTTCCCTGG 480
AAGGCCGGCCCCGAGTTCGTGGGACTGTGGCTGGGCCTGGC 520
CAAGGCCGGTGTAGTGGCTGCGCTTCTCAATGTCAACCTG 560
AGGCGGGAGCCCCCTTGCCCTTCTGCTTGGGCACATCAGCTG 600

      610      620      630      640
      |      |      |      |
CCAAGGCCCTCATTTATGGCGGGGAGATGGCAGCGGCGGT 640
GGCGGAGGTGAGTGAGCAGCTGGGGAAGAGCCTGCTCAAG 680
TTCTGCTCTGGAGATCTGGGGCCTGAGAGCGTCCTGCCTG 720
ACACGCAGCTTCTGGACCCCATGCTTGCTGAGGCGCCAC 760
CACACCCCTGGCACAGGCCCCAGGCAAGGGCATGGATGAT 800

      810      820      830      840
      |      |      |      |
CGGCTATTTTACATCTATACTTCTGGGACCACCGGACTTC 840
CTAAGGCGGCCATTGTGGTGCACAGCAGGTACTACCGCAT 880
CGCAGCCTTCGGCCACCATTCCTACAGCATGCGGGCCAAC 920
GATGTGCTCTATGACTGCCTACCTCTCTACCACTCAGCAG 960
GGAACATCATGGGCGTGGGACAGTGTATCATCTACGGGTT 1000

     1010     1020     1030     1040
     |     |     |     |
AACGGTGGTACTGCGCAAGAAGTTCTCCGCCAGCCGCTTC 1040
TGGGACGACTGTGTCAAATATAATTGCACGGTAGTGCACT 1080
ACATCGGTGAAATATGCCGCTACCTGCTAAGGCAGCCGGT 1120
TCGCGATGTAGAGCGGCGGCACCGCGTGCGCCTGGCCGTG 1160
GGTAACGGACTGCGGCCAGCCATCTGGGAGGAGTTCACGC 1200

```

FIG. 56A



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

1210	1220	1230	1240
AGGGTTTCGGTGTGCGACAGATTGGCGAGTTCTACGGCGC 1240			
CACCGAATGCAACTGCAGCATTGCCAACATGGACGGCAAG 1280			
GTCGGCTCCTGCGGCTTCAACAGCCGTATCCTCACGCATG 1320			
TGTACCCCATCCGTCTGGTCAAGGTCAACGAGGACACGAT 1360			
GGAGCCACTGAGGGACTCCCAAGGCCTCTGCATCCCGTGC 1400			
1410	1420	1430	1440
CAGCCCGGGGAACCTGGGCTTCTCGTGGGCCAGATCAACC 1440			
AGCAAGACCCTCTGCGGCGCTTCGATGGCTATGTTAGTGA 1480			
CAGCGCCACCAACAAGAAGATTGCCACAGCGTGTTCCGA 1520			
AAGGGGGACAGCGCCTACCTTTCAGGTGACGTGCTAGTGA 1560			
TGGACGAGCTGGGGTACATGTACTTCCGTGACCGCAGCGG 1600			
1610	1620	1630	1640
GGATACCTTCCGATGGCGCGGCGAGAACGTATCCACCACG 1640			
GAGGTGGAAGCCGTGCTGAGCCGCTGTTGGGCCAGACGG 1680			
ACGTGGCTGTGTATGGAGTGGCTGTGCCAGGAGTGGAGGG 1720			
GAAAAGCGGCATGGCGGCCATTGCAGACCCCCACAACCAG 1760			
CTGGACCCTAACTCAATGTACCAGGAATTGCAGAAGGTTT 1800			
1810	1820	1830	1840
TTGCATCCTATGCCCAGCCCATCTTCCTGCGTCTTCTGCC 1840			
CCAAGTGGATACAACAGGCACCTTCAAGATCCAGAAGACC 1880			
CGACTACAGCGTGAAGGCTTTGACCCCCGCCAGACCTCAG 1920			
ACCGGCTCTTCTTTCTAGACCTGAAACAGGGACGCTACCT 1960			
ACCCCTGGATGAGAGAGTCCATGCCCGCATCTGCGCAGGC 2000			
2010	2020	2030	2040
GACTTCTCACTCTGAGCCTGGTGAGTGGGATGGCCCTGGA 2040			
CTTGTGAGACCAGGGAGCCGGACACCCCTGTTTCAGGTGTT 2080			
TCTCCTGCCTGGCCACGTGGCCAGCAGCACCTGTGGGTGC 2120			
AGGAAACTGGAACCTGAGTGGCCGGGTGTCCCTTTCTAC 2160			
AACCCACCATGCACACATCTAGCCTCTGCCTTGGTCTTTT 2200			

FIG. 56B



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

2210 2220 2230 2240  
TCTCCATCTCTTTCTCCTCCGTGCCCAGCAGGAGCCCCACAG 2240  
ACACATTGGCTGCTGTGTCTGCTGAGTGGGACCGGTGTCTA 2280  
GGGGTCCATGCTGCAGGCTGTGACCCGCACTGGTGCCAC 2320  
CTCCCTTCCCCATTGTGCCTTAGGTTCTCCACTGTGCGC 2360  
CGGTGAAGCAAGTGGGGACCCACATAGCTGTTGTCCCTGC 2400  
2410 2420 2430 2440  
TGAGGGTTGGTAGCAAATGCACCCTCATGTCAGCTGGGAG 2440  
ACACATGCAGTCTCCCACTGACCCCAATCAACTGAAGAT 2480  
ACTGTTTTGTATTATTGTTTGGAGATAGGGTCTCACTGTG 2520  
GAGGCCAAGCTGGCCTCAGGCTCACCCTCTACTGCCTCC 2560  
GGGCACCAGCCTGCAGTTTGATGACATGTATGCACTATTG 2600  
2610 2620 2630 2640  
TTCTAAGGGTCTTCTGAGTCCCTGCTTTCCCCTCATGTCC 2640  
TAAACCTTCCAGAACTGACTCTGATCACTTGGATGTAGC 2680  
TAGTGTGGCCCTGCCACGTGTGTCAATTCAGGGGTCCC 2720  
CAGGCATCATCTCTGGAGGCCCTAACCTTGGCAAAGCTTG 2760  
GATGTCCTCACATCACAGCAGGAGACCCAGGAAGGTTGCT 2800  
2810 2820 2830 2840  
GTGGTGTCTCTTGGGCACCCCTGGCGGCAGCCGTGGACAT 2840  
GCTTCCCTGCTGTGATAGCCCAAACCTGTTGCCTATGACAT 2880  
TTGAGGTCTACCCTTCTGGCTGCCATGGTCCCCATTGAGA 2920  
TCTTTGGTGACTCACCTCAGCCACCAAGCCAGGCCTCTGC 2960  
CTTCCTTCAGCTCTAAGGGCATGAAGGGTGTGGACAGAGC 3000  
3010 3020 3030 3040  
AGCCACAGGCTGCCCACAGTCACCCACATGCAAGTGTTAT 3040  
TTCCTTGTTTGTGTTTTAAAAAATAAACATGCTGAGCCTTG 3080  
AAAAAAAAAAAAAAAAAAAA 3098

FIG. 56C



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

mFATP1 full length protein

```

      10      20      30      40
      |      |      |      |
MRTPGAGTASVASLGLLWLLGLPWTWSAAAAFGVYVGSGG 40
WRFLRIYCKTARRDLFGLSVLIRVRLELRRHRRAGDTIPR 80
IFQAVAQRQPERLALVDASSGICWTFAQLDTYSNAVANLF 120
LQLGFAPGDVVAVFLEGRPEFVGLWLGLAKAGVVAALLNV 160
NLRREPLAFCLGTSAAKALIYGGEMAAVAEVSEQLGKSL 200
      210      220      230      240
      |      |      |      |
LKFCSGDLGPESVLPDTQLLDPLAEAPTTPLAQAPGKGM 240
DDRLFYIYTS GTTGLPKAAIVVHSRYRRIA AFGHHSYSMR 280
ANDVLYDCLPLYHSAGNIMGVQCIIYGLTVVLRKKFSAS 320
RFWDDCVKYNCTVVQYIGEICRYLLRQPVRDVERRHRVRL 360
AVGNGLRPAIWEEFTQGGFVROIGEFYGATECNCSIANMD 400
      410      420      430      440
      |      |      |      |
GKVGSCGFNSRILTHVYPIRLVKVNEDTMEPLRDSQGLCI 440
PCQPGEPGLLVGQINQQDPLRRFDGYVSDSATNKKIAHSV 480
FRKGDSAYLSGDVLMDELGYMYFRDRSGDTFRWRGENVS 520
TTEVEAVLSRLLGQTDVAVYGVAVPGVEGKSGMAA!ADPH 560
NQLDPNSMYQELQKVLASYAQPIFLRLLPQVDTTGTFKIQ 600
      610      620      630      640
      |      |      |      |
KTRLQREGFDPROTS DRLFFLDLKQGRYLPLDERVHARIC 640
AGDFSL 646
```

FIG. 57

mVLACS (FATP2) full length DNA



10 20 30 40  
GACACAGTACTGCCGATGTTGGACAGAGGATCGCTTAACA 40  
GAACGAAATCTCAAAACAAATTAACAGGACCCGGTTGCTT 80  
GATTTCCCAAATCAGAAAAGGCTCGAAATGTCTAGAGGGG 120  
CTGACTGATGCAGCGGTGACCCGGACTGGAGACAGTTGGA 160  
CGCGATCATCTCTGGTGCTTTTGTTC AACCTTGAAACCTT 200  
210 220 230 240  
CGCCACAGGAGACTTGCCTGAGCAGAGAAGCAAACGTGGA 240  
GAAACAAAGAGAGATCTAGCGAAAAGCCTCTGGGACCAAG 280  
GAGGGGAGGTGGGACTCTGGGTTGGCGGTGGCACCTGCTG 320  
CCGGCTATTAATAATAGGGTCGCGATGCGTTTATAAGGTG 360  
TTTGATTAAACAAAGACTCTATGAGAGAAGAATAACTAGC 400  
410 420 430 440  
AACAGCCCCACGTCTGAGTCGTCGCCCTCCGACCTTTTTTCA 440  
ACGTGGGTTCTTTGGGCCGAGCGTCGTTTGCCGAGAACTA 480  
GATCTCACCTGACCCCAGACGCTGAAAACAAGCGCTGTGG 520  
CATCCTGGGCCACCCAAGCTGACAAGGGCGCGCCCCCTGA 560  
GCACACGAGGTGCCCCACGAGGGGGAGGGACCCACAGCCG 600  
610 620 630 640  
TCCCGCCCGCACCGCGGTGTCCGCTGCGGGCACCTGCAGC 640  
CGAGCCGCCACCCGCGAGTCGCGAGCGCGTCCGGCGGCCGAA 680  
CCCGGTGCTCAGCTCGTCAGCACCTGCTCTGCTTCTCTCC 720  
CGCCCGCCGCGCGCTGCACGCCTCGAGCGCTCCCTCGGC 760  
CCCGGCGGGGACCGGGGACCCGCGAGCCACCGCCATGCTG 800  
810 820 830 840  
CCTGTGCTCTACACCGGCCTGGCGGGGCTGCTGCTGCTGC 840  
CTCTGCTGCTCACCTGCTGCTGCCCCCTACCTCCTCCAGGA 880  
CGTGCGGTTCTTCTGCAACTGGCCAACATGGCCCGGCAG 920  
GTGCGCAGCTACCGGCAGCGGCGACCCGTGCGCACCATCC 960  
TGCATGTCTTCTTGAGCAAGCGCGCAAGACCCCGCACAA 1000  
1010 1020 1030 1040  
GCCCTTCTGCTGTTTCGCGACGAGACGCTTACCTACGCC 1040  
CAGGTAGACCGGCGCAGCAACCAAGTAGCGCGAGCGCTGC 1080  
ATGATCACCTGGGCTGCGGCAGGGGGATTGCGTGGCCCT 1120  
CTTCATGGGCAATGAGCCGGCCTACGTGTGGCTCTGGCTG 1160  
GGACTGCTCAAACCTGGGCTGTCCCATGGCGTGCCTCAACT 1200

FIG. 58A



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

1210 1220 1230 1240  
ACAACATCCGTGCCAAGTCTCTGCTACACTGCTTTTCAGTG 1240  
CTGCGGGGCGAAGGTGCTGCTGGCCTCCCCAGAGCTACAC 1280  
GAAGCTGTCGAGGAGGTTCTTCCAACCCTGAAAAAGGAGG 1320  
GCGTGTCGGTCTTCTACGTAAGCAGAAGTTCTAACACTAA 1360  
TGGCGTGGACACAGTACTGGACAAAGTAGACGGGGTGTCTG 1400  
1410 1420 1430 1440  
GCGGACCCCATCCCGGAGTCGTGGAGGTCTGAAGTCACGT 1440  
TCACCACACCCGCAGTCTACATATATACTTCGGGCACCAC 1480  
AGGTCTTCCAAAGGCTGCAACCATTAATCACCATCGCCTC 1520  
TGGTATGGGACCAGCCTTGCCCTGAGGTCCGGAATTAAGG 1560  
CTCATGACGTCATCTACACCACCATGCCCTGTACCACAG 1600  
1610 1620 1630 1640  
CGCGGCGCTCATGATTGGCCTCCACGGATGCATTGTGGTT 1640  
GGGGCTACATTTGCTTTGCGGAGCAAATTTTCAGCCAGCC 1680  
AGTTTTGGGACGACTGCAGGAAATACAACGCCACTGTCAT 1720  
TCAGTACATCGGTGAAGTCTTCGGTACCTCTGCAACACG 1760  
CCCCAGAAACCAAATGACCGGGACCACAAAGTGAAAATAG 1800  
1810 1820 1830 1840  
CACTAGGAAATGGCTTACGAGGAGATGTGTGGAGAGAGTT 1840  
CATCAAGAGATTTGGGGACATTCACATTTATGAGTTCTAC 1880  
GCTTCCACTGAAGGCAACATTGGATTTATGAACTATCCAA 1920  
GAAAAATCGGAGCTGTTGGAAGAGAAAATTACCTACAAAA 1960  
AAAAGTTGTAAGGCACGAGCTGATCAAGTATGACGTGGAG 2000  
2010 2020 2030 2040  
AAGGATGAGCCTGTCCGTGATGCAAATGGATATTGCATCA 2040  
AAGTCCCCAAAGGAGAGGTTGGACTCTTGATTTGCAAAAT 2080  
CACAGAGCTCACACCATTTTTTGGCTATGCTGGAGGAAAG 2120  
ACCCAGACAGAGAAGAAAAAGCTCAGAGATGTTTTTAAGA 2160  
AAGGAGACGTCTACTTCAACAGTGGCGATCTCCTGATGAT 2200

FIG. 58B





Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

2210	2220	2230	2240
CGACCGTGAAAATTTTCATCTATTTTCACGACAGAGTTGGA 2240			
GACACCTTCCGGTGGAAAGGAGAGAATGTAGCTACCACGG 2280			
AAGTCGCTGACATTGTGGGACTGGTAGATTTTGTGGAAGA 2320			
AGTGAATGTTTACGGTGTGCCCCTGCCAGGTCATGAAGGT 2360			
CGCATCGGGATGGCCTCGATCAAGATGAAAGAAAACACTACG 2400			
2410	2420	2430	2440
AGTTCAATGGAAAGAAACTCTTTCAGCACATCTCGGAGTA 2440			
CCTGCCCAGTTACTCGAGGCCTCGGTTCTTGAGAATACAA 2480			
GATACCATGAGATCACCGGGACTTTTAAACACCGCAAAG 2520			
TGACCCTGATGGAAGAGGGCTTTAACCCTCAGTCATCAA 2560			
AGATACCTTGTATTTTCATGGATGACACAGAAAAACATAC 2600			

2610	2620	2630	2640
GTGCCCATGACTGAGGACATTTATAATGCCATAATTGATA 2640			
AGACTCTGAAGCTCTGAATGTTGCCTGGCTCCTAACACTT 2680			
CCAGAAAGAAACACAATAGGCCTAGCATAGCCCCTTCACA 2720			
TGTGTAATCCAACCTTTAACTTGATTAAAGGTTATAGGTGT 2760			
GATTTTTCCTAGGAAATTATTCATTTAAAGGACAATTGTT 2800			
2810	2820	2830	2840
TGTTTGTTTGTTTGTTTTTATTAATTACACCAGAACGTT 2840			
TGCAAGTAAAAAGATTTAAAGTCACTTATTTTTCAATGTG 2880			
CACCTGCCATTTGTCCTTGCAAACCTTAGCTTCTTGGAGAG 2920			
AGGGCCTTATTTTTTTTAAAGACATAATAAACTATGTAAAC 2960			
ACT 2963			

FIG. 58C



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

mVLACS (FATP2) full length protein

```

      10      20      30      40
      |      |      |      |
MLPVLYTGLAGLLLLPLLLTCCCPYLLQDVRFLLQLANMA 40
ROVRSYRQRRPVRTLHVFLAQARKTPHKPFLLFRDETLT 80
YAQVDRRSNQVARALHDHLGLRQGDVALFMGNEPAYVWL 120
WLGLLLKLGCPMACLNYNIRAKSLLHCFQCCGAKVLLASPE 160
LHEAVEEVLP TLKKEGVSVFYVSRTSNTNGVDTVLDKVDG 200
      210      220      230      240
      |      |      |      |
VSADPIPESWRSEVTFTTPAVYIYTS GTTGLPKAATINHH 240
RLWYGTSALALRSGIKAHDVIYTTMPLYHSAALMIGLHGCI 280
VVGATFALRSKFSSASQFWDDCRKYNATVIOYIGELLRYLC 320
NTPQKPNDRDHKVKIALGNGLRGD VWREFIKRFGDIHIYE 360
FYASTEGNIGFMNYP RKIGAVGRENYLQKKVVRHEL IKYD 400
      410      420      430      440
      |      |      |      |
VEKDEPVRDANGYCIKVPKGEVGLLICKITELTPFFGYAG 440
GKTQTEKKKL RDVFKKGDVYFNSGDLLMIDRENFIYFHDR 480
VGDTFRWKGENVATTEVADIVGLVDFVEEVNVYGVVPVPGH 520
EGRIGMASIKMKENYEFNGKKLFOHISEYLPYSYRPRFLR 560
IODTIEITGTFKHKRVTLMEEGFNPSVIKDTLYFMDDTEK 600
      610      620      630      640
      |      |      |      |
TYVPMTEDIYNAIIDKTLKL 620

```

FIG. 59

mFATP4 partial DNA



10 20 30 40  
GATCAGCTCTTCTATATCTACACGTCGGGCACACGGGGC 40  
TACCCAAAGCTGCCATTGTGGTGCACAGCAGGTATTACCG 80  
AATGGCTGCCCTGGTGTACTATGGATTCCGCATGCGGCCT 120  
GATGACATTGTCTATGACTGCCTCCGCCTCTACCACTCAG 160  
CAGGAAACATTGTGGGGATTGGCCAGTGCGTACTCCACGG 200  
210 220 230 240  
CATGACTGTGGTGATCCGGAAGAAGTTTTTCAGCCTCCCGG 240  
TTCTGGGATGACTGTATCAAGTACAAGTGCACAATTGTAC 280  
AGTACATTGGTGAGCTTTGCCGCTACCTCCTGAACCAGCC 320  
ACCCCGTGAGGCTGAGTCTCGGCACAAGGTGCGCATGGCA 360  
CTGGGCAACGGTCTCCGGCAGTCCATCTGGACCGACTTCT 400  
410 420 430 440  
CCAGCCGTTTCCACATTCCCAAGGTGGCCGAGTTCTACGG 440  
GGCCACCGAGTGCAACTGTAGCTTGGGCAACTTTGACAGC 480  
CAGGTGGGGGCTGTGGCTTCAATAGCCGCATCCTGTCCT 520  
TTGTGTACCCCATCCGCTTGGTACGAGTCAATGAGGATAC 560  
CATGGAAGTATCCGGGGACCCGATGGCGTCTGCATTCCC 600  
610 620 630 640  
TGTCACCAGGCCAGCCAGGCCAGCTGGTGGGTGCGATCA 640  
TCCAGCAGGACCCCTACGCCGTTTTGATGGCTACCTCAA 680  
CCAGGGTGCCAACAACAAGAAGATTGCTAGTGATGTCTTC 720  
AAGAAAGGGGACCAAGCCTACCTCACTGGTGACGTGCTGG 760  
TGATGGATGAGCTGGGCTACCTGTACTTCCGAGACCGCAC 800  
810 820 830 840  
AGGGGACACGTTCCGCTGGAAAGGGGAGAATGTGTCTACC 840  
ACTGAAGTGGAGGGCACACTCAGCCGCCTGCTTCAGATGG 880  
CAGATGTGGCTGTTTATGGTGTGAGGTGCCAGGAGCTGA 920  
GGGCCGAGCAGGAATGGCTGCTGTGGCAAGCCCCACTAGC 960  
AACTGTGACCTGGAGAGCTTTGCACAGACCTTGAAAAAGG 1000  
1010 1020 1030 1040  
AGCTGCCCTGTACGCCCGCCCCATCTTCCTCCGCTTCTT 1040  
GCCTGAGCTGCACAAAACAGGAACCTTCAAGTTCCAGAAG 1080  
ACAGAGTTGCGGAAGGAGGGCTTTGACCCGTCTGTTGTGA 1120  
AAGACCCACTCTTCTATTTGGATGCCCGGACAGGCTGCTA 1160  
TGTTCACACTGGACCAAGAGGCCTATACCCGCATCCAGGCA 1200

FIG. 60A



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

1210 1220 1230 1240  
GGCGAGGAGAAGCTGTGATTTCCCCACATCCCTCTGAGG 1240  
GCCAGAGGATGCTGGATTGAGAGCCCCAGCTTCCACTCCA 1280  
GAAGGGGTCTGGGCAAGGCCAGACCAAAGCTAGCAGGGCC 1320  
CGCACCTTCACCCTAGGTGCTGATCCCCCT 1350

FIG. 60B

mFATP4 partial DNA

10 20 30 40  
DQLFYIYTS GTTGLPKAAIVVHSRYRMAALVYYGFRMRP 40  
DDIVYDCLPLYHSAGNIVGIGQCVLHGMTVVIRKKFSASR 80  
FWDDCIKYNCTIVQYIGELCRYLLNQPPREAESRHKVRMA 120  
LGNGLRQSIWTFSSRFHIPKVAEFYGATECNC SLGNFDS 160  
QVGACGFNSRILSFVYPIRLVRVNEDTMELIRGPDGVCIP 200  
210 220 230 240  
CQPGQPGQLVGRIIQQDPLRRFDGYLNQGANNNKIASDVF 240  
KKGDAQAYLTGDVLVMDLGYLYFRDRTGDTFRWKGENVST 280  
TEVEGTLSRLLQMAADVAVYGVEVPGAEGRAGMAAVASPTS 320  
NCDLESFAQTLKKELPLYARPIFLRFLPELHKTGTFKFQK 360  
TELKKEGFDPSVVKDPLFYLDARTGCYVALDQEAAYTRIQ 400  
410 420 430 440  
GEEKL 405

FIG. 61

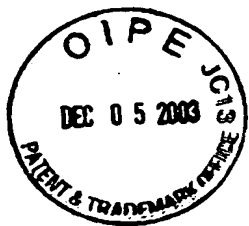


Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

mmFATP1 full length DNA

10 20 30 40  
ATGCGGGCTCCTGGAGCAGGAACAGCCTCTGTGGCCTCAC 40  
TGGCGCTGCTTTGGTTTCTGGGACTTCCGTGGACCTGGAG 80  
CGCGGCGGCGGCGTTCTGTGTGTACGTGGGTGGCGGCGGC 120  
TGGCGCTTTCTGCGTATCGTCTGCAAGACGGCGAGGCGAG 160  
ACCTCTTTGGCCTCTCTGTTCTGATTCTGTGTTTCGGCTAGA 200  
210 220 230 240  
GCTGCGACGACACCGGCGAGCAGGAGACACGATCCCGTGTC 240  
ATCTTCCAGGCTGTGGCCCGGCGACAACCAGAGCGCCTGG 280  
CACTGGTGGACGCCAGTAGTGGTATATGCTGGACCTTCGC 320  
ACAGCTGGACACCTACTCCAATGCTGTAGCCAACCTGTTC 360  
CGCCAGCTGGGCTTTGCACCAGGCGATGTGGTGGCTGTGT 400  
410 420 430 440  
TCCTGGAGGGCCGGCCGGAGTTCGTGGGACTGTGGCTGGG 440  
CCTGGCCAAGGCCGGTGTGGTGGCTGCTCTTCTCAATGTC 480  
AACCTGAGGCGGGAGCCCCTGGCCTTCTGCCTGGGCACAT 520  
CAGCTGCCAAGGCCCTCATTTATGGCGGGGAGATGGCAGC 560  
GGCGGTGGCGGAGGTGAGCGAGCAGCTGGGGAAGAGCCTC 600  
610 620 630 640  
CTCAAGTTCTGCTCTGGAGATCTGGGGCCTGAGAGCATCC 640  
TGCCCTGACACGCAGCTCCTGGACCCCATGCTTGCTGAGGC 680  
GCCCACCACACCCCTGGCACAAGCCCCAGGCAAGGGCATG 720  
GATGATCGGCTGTTTTACATCTATACTTCTGGGACCACCG 760  
GGCTTCCTAAGGCTGCCATTGTGGTGCACAGCAGGTACTA 800  
810 820 830 840  
CCGCATTGCTGCCTTTGGCCACCATTCTACAGCATGCGT 840  
GCCGCCGATGTGCTCTATGACTGCCTGCCACTCTACCACT 880  
CTGCAGGGAACATCATGGGTGTGGGGCAGTGCGTCATCTA 920  
CGGGTTGACGGTGGTACTGCGCAAGAAGTTCTCCGCCAGC 960  
CGCTTCTGGGATGACTGTGTCAAGTACAATTGCACGGTAG 1000  
1010 1020 1030 1040  
TGGATGACATAGGTGAAATCTGCCGCTACCTGCTGAGGCA 1040  
GCCGGTTCGCGACGTGGAGCAGCGACACCGCGTGCGCCTG 1080  
GCCGTGGGTAATGGGCTGCGGCCAGCCATCTGGGAGGAGT 1120  
TCACGCAGCGCTTCGGTGTGCCACAGATCGGCGAGTTCTA 1160  
CGGCGCTACCGAGTGCAACTGCAGCATTGCCAACATGGAC 1200

FIG. 62A



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

1210	1220	1230	1240
GGCAAGGTCGGCTCCTGCGGCTTCAACAGCCGTATCCTCA	1240		
CGCATGTGTACCCCATCCGTCTGGTCAAGGTCAATGAGGA	1280		
CACGATGGAGCCACTGCGGGACTCCGAGGGCCTCTGCATC	1320		
CCGTGCCAGCCCGGGGAACCCGGCCTTCTCGTGGGCCAGA	1360		
TCAACCAGCAGGACCCTCTGCGGCGTTTCGATGGTTATGT	1400		

1410	1420	1430	1440
TAGTGACAGTGCCACCAACAAGAAGATTGCCCCACAGCGTT	1440		
ITCCGAAAGGGCGATAGCGCCTACCTCTCAGGTGACGTGC	1480		
TAGTGATGGACGAGCTGGGCTACATGTATTTCCGTGACCG	1520		
CAGCGGGGACACCTTCCGCTGGCGCGGGGAGAACGTGTCC	1560		
ACCACGGAGGTGGAAGCCGTGCTGAGCCGCCTACTGGGCC	1600		

1610	1620	1630	1640
AGACGGACGTGGCTGTGTATGGGGTGGCTGTGCCAGGAGT	1640		
GGAGGGGAAAGCTGGCATGGCAGCCATCGCAGATCCCCAC	1680		
AGCCAGTTGGACCCTAACTCAATGTACCAGGAATTACAGA	1720		
AGGTTCTTGCATCCTATGCTCGGCCCATCTTCCTGCGTCT	1760		
TCTGCCCCAGGTGGATAACCACAGGCACCTTCAAGATCCAG	1800		

1810	1820	1830	1840
AAGACCCGGCTGCAGCGTGAAGGCTTTGACCCCCGTCAGA	1840		
CCTCAGACAGGCTCTTCTTTCTAGACCTGAAGTCCGGCAC	1880		
GAGGTATCTACCCCTGGATGAGAGAGTCCATGCCCGCATT	1920		
TGCGCAGGCGACTTCTCACTCTGAGCCTGGAGAGTGGGCT	1960		
GGGCCTGGACTCCTGAGACCTGGGAGCCTGACACCCCTCT	2000		

2010	2020	2030	2040
TCGGGTGCTTCTCCTGCCTGGCCACATGGACAGCAGCACC	2040		
TGTGAGAGTAGGAAAATGGAACCTGAGTGGCTGGGACCCC	2080		
TCTCCTACTTCCCCTATGCATCCATTTTGCCTCTGCCTT	2120		
GATCTTTTTCTCCATCTCTTTTCTCCCTACCCAGCAGGAG	2160		
CCCCACAAACACATGTTGGCTGCTGTGTCCTGCAGTTGGA	2200		

FIG. 62B



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

2210 2220 2230 2240  
CCAGTGTCCAGGGGTACAGGCTTCAGGCTGTGACCCACAC 2240  
TGGTACCCACCTCCCTTTTCCTATTTTGCCTTAGGTTTCATC 2280  
CACGGTTCCCCTGTGGAGCAAGTGGGGGCCACATAGCTG 2320  
CTGTCCCTGCTGAGGGTTGGTAGCAATCACACCCTCATGT 2360  
CAGCTGGGAGACACGCGCAGTCTCCCACTGACCCCCAATC 2400  
2410 2420 2430 2440  
AACTGAAAATATTGTTTTGACTACTTTTTGTTTTTTTGT 2440  
TTTTTGTTTTTTTTTTTTTTTTCGAGACAGAGTTTCTCTGTA 2480  
TAGCCCTGGCTGTCCTGGAACCTCACTTTGTAGACCAGGCT 2520  
GGCCTCGAACTCAAAAATCCTCCTGACTCTGCCTCTGCTT 2560  
CCCAAGTGCTGGGATTAAAGACGTGCGCCACCACCGCCTG 2600  
2610 2620 2630 2640  
GCTGTTTTGTATTTTGTTTTGTTTTGACGATAGGGTCTC 2640  
ACTGTGGAGGCCAAGCTGGCCTCAGACTCCCCACCCCAT 2680  
GCCTCTGGGCACCATTTCTATATTCTCAGACTGATGACAAT 2720  
GCACTAGTGTCCCTAGGAGTCTTGAGTCTGCACTTTCCCC 2760  
TCATAGCCTCAAGCTTCCAGAACTGACTCTGATCACTTGG 2800  
2810 2820 2830 2840  
ATGTGGCTAGTGTTGGCTCTACCCACATGTGTCAATTTCAG 2840  
GGGTCCCCAGGCATAGTCTCTGGAAGCCCTCACCCGGAAA 2880  
AAGCTTGGAGAGACCCAGGAAGGTTGTTGTGTTCTCTTGG 2920  
GCACCCCTGGTGGCAGTCCTGGGCATGCTTCCGCACTGT 2960  
ACTGGTGCAATATAGCCCAGACCTATGACATTTGAGGTCTA 3000  
3010 3020 3030 3040  
CCCTTCTGGCTCCTGTGGTCCCCATTGAGATCCTTGGTGA 3040  
CTCACCTCAGTCACCAAGCAGAGCCTCTGCCTGCCTTCAT 3080  
CTTCAAGGTCATGAAGGATGTGGACAGAGCAGCTACAGGC 3120  
TGCCAGCAGTCAACCACATGAGAGTGTTACTTCCTTGTTG 3160  
GTTTTTAAAAAATAAATGTGCTGAGCCTCGAAAAAAAAAA 3200  
3210 3220 3230 3240  
AAAAAAAAAAAAAAAAA 3217

FIG. 62C



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

mmFATP1 full length protein

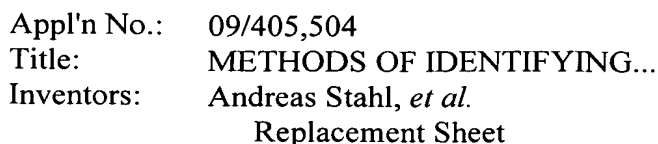
```

      10      20      30      40
+-----+
MRAPGAGTASVASLALLWFLGLPWTWSAAAAFCVYVGGGG 40
WRFLRIYCKTARRDLFGLSVLIRVRLELRRHRRAGDTIPC 80
IFOAVARROPERLALVDASSGICWTFAQLDTYSNAVANLF 120
RQLGFAPGDVVAVFLEGRPEFVGLWLGLAKAGVVAALLNV 160
NLRREPLAFCLGTSAAKALIYGGEMAAVAEVSEQLGKSL 200
      210      220      230      240
+-----+
LKFCSGDLGPESILPDTQLLDPMLAEAPTTPLAQAPGKGM 240
DDRLFYIYTS GTTGLPKAAIVVHSRYYRIAAF GHHSYSMR 280
AADVLYDCLPLYHSAGNIMGVGO CVIYGLTVVLRKKFSAS 320
RFWDDCVKYNCTVVD DIGEICRYLLRQPV RDVEQRHRVRL 360
AVGNGLRPAIWEEFTORFGVPQIGEFYGATECNC SIANMD 400
      410      420      430      440
+-----+
GKVGSCGFNSRILTHVYPIRLVKVNEDTMEPLRDSEGLCI 440
PCQPGEPGLLVGOINQQDPLRRFDGYVSDSATNKKIAHSV 480
FRKGDSAYLSGDVLVMDELGYMYFRDRSGDTFRWRGENVS 520
TTEVEAVLSRLLGQTDVAVYGVAVPGVEGKAGMAAIADPH 560
SQLDPNSMYQELQKVLASYARPIFLRLLPOVDTTGTFKIQ 600
      610      620      630      640
+-----+
KTRLQREGFDPRQTS DRLFFLDLKSGTRYLPLDERVHARI 640
CAGDFSL 647

```

FIG. 63





10 20 30 40

GGGCGGAGGCCGAGCCAGTCGCCAGCTCCTGCTCTGCTC 40  
CTCTCCCGCCTGCCGCCGCGCTGCACGCCTCGAGCACTCC 80  
CTCGGCCCGGCGGGGACCGGGGACCCCGCAGCTACCGCC 120  
ATGCTGCCAGTGCTCTACACCGGCCTGGCGGGGCTGCTGC 160  
TGCTGCCTCTGCTGCTCACCTGCTGCTGCCCTACCTCCT 200

210 220 230 240

CCAAGATGTGCGGTACTTCTTGCGGCTGGCCAACATGGCC 240  
CGGCGGGTGCGCAGCTACCGGCAGCGGGGACCCGTGCGTA 280  
CCATCCTGCGGGCCTTCTTGAACAAGCGCGCAAGACCCC 320  
ACACAAGCCCTTCTTGCTGTTCCGAGACGAGACGCTCACC 360  
TACGCCCAGGTGGACCGGCGCAGCAACCAAGTGGCGCGGG 400

410 420 430 440

CGCTGCACGATCAACTGGGCCTACGACAGGGGGATTGCGT 440  
AGCCCTCTTTCATGGGCAATGAGCCGGCCTACGTGTGGATC 480  
TGGCTGGGACTGCTCAAACCTGGGCTGTCCCATGGCGTGCC 520  
TCAACTACAACATTCGTGCCAAGTCTCTGCTGCACTGCTT 560  
TCAATGCTGCGGGGCGAAGGTGCTGCTGGCCTCCCCAGAT 600

610 620 630 640

CTACAAGAAGCTGTGGAGGAGGTTCTTCCAACCCTGAAAA 640  
AGGATGCCGTGTCCGTCTTTTACGTAAGCAGAACTTCTAA 680  
CACAAATGGTGTGGACACAATACTGGACAAAGTAGACGGA 720  
GTGTGCGCGGAACCCACCCCGGAGTCGTGGAGGTCTGAAG 760  
TCACTTTTACCACGCCAGCAGTATACATTTATACTTCGGG 800

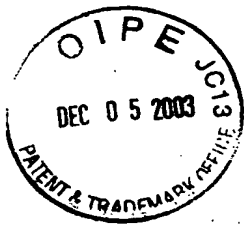
810 820 830 840

AACCACAGGTCTTCCAAAAAGCGGAACCATCAATCATCAT 840  
CGCCTAAGGTATGGGACAAGCCTTGCTATGTTCGAGTGGGA 880  
ATCACGGCCAAGGATGTCATCTATACCAACAATGCCCTTG 920  
TTCCAACAGTGCAACGCTCAAGATCGGCCTTCACGGATGC 960  
ATCCTGGGTGTTGGGGCTACTTTAACCTTGGCGGGGCAAATT 1000

1010 1020 1030 1040

CTCAAGCAAGCCAATTTTGGGAACGACTGGCAGGAAATAC 1040  
AACGTCAACGGTCATTTCAGTACATTGGTGAAGTCTTCGG 1080  
TACCTGTGCAACACACCGCAGAAACCAAATGACCGGGACC 1120  
ACAAAGTGAAAAAAGCCCTGGGAAATGGCTTACGAGGAGA 1160  
TGTGTGGAGAGAGTTTCATCAAGAGATTTGGGGACATCCAC 1200

FIG. 64A



1210 1220 1230 1240  
GTGTATGAGTTCTACGCATCCACTGAAGGCAACATTGGAT 1240  
TTGTGAACTATCCAAGGAAAATCGGTGCTGTCGGGAGAGC 1280  
AAACTACCTACAAAGAAAAGTTGCAAGGTATGAGCTGATC 1320  
AAGTATGACGTGGAGAAGGACGAGCCGGTCCGTGACGCAA 1360  
ATGGATATTGCATCAAAGTCCCCAAAGGTGAGGTTGGACT 1400  
1410 1420 1430 1440  
CTTGGTTTGC AAAATCACACAGCTCACACCATTATTGGC 1440  
TATGCTGGAGGAAAGACCCAGACAGAGAAGAAAAAACTCA 1480  
GAGATGTCTTTAAGAAAGGCGACATCTACTTCAACAGCGG 1520  
AGACCTCCTGATGATCGACCGTGAGAACTTCGTCTACTTT 1560  
CACGACAGGGTTGGAGATACTTTCCGGTGGAAGGAGAGA 1600  
1610 1620 1630 1640  
ACGTAGCTACACAGAAGTCGCTGACATCGTGGGACTGGT 1640  
AGATTTTGTGAAGAAGTGAATGTGTATGGCGTGCCTGTG 1680  
CCAGGTCATGAGGGTCGAATTGGGATGGCCTCCCTCAAGA 1720  
TCAAAGAAAACTACGAGTTCAATGGAAAGAACTCTTTCA 1760  
ACACATCGCGGAGTACCTGCCAGTTACGCGAGGCCTCGG 1800  
1810 1820 1830 1840  
TTCCTGAGGATACAAGATACCATTTGAGATCACTGGGACTT 1840  
TTAAACACCGCAAAGTGACCCTGATGGAAGAGGGCTTCAA 1880  
TCCCACAGTCATCAAAGATACCTTGTATTTTCATGGATGAT 1920  
GCAGAGAAAAACATTTGTGCCCATGACTGAGAACATTTATA 1960  
ATGCCATAATTGATAAAACTCTGAAGCTCTGAATATTCCC 2000  
2010 2020 2030 2040  
TGGTGGTTTAGCTCATGACATTTCCAGAAAGAAACTCGAT 2040  
AGACCTCGCAGAGCCACTTCATACGTAGAATCCAACCTTTA 2080  
ACTTGATTGAAGACTATAAGGTGCGATTTTATTTTATAGGA 2120  
AATTATTCATTAAAAGGATAGTTTTTTTTTTTTTTTTTAA 2160  
TTACACCTGAACCTTTGCAAGTAAAAAGATTTAGAGACAA 2200  
2210 2220 2230 2240  
TTATTTTTCAATGTGCACCTGCCATTTGTCCTTGCAAAC 2240  
AAGCTTCTTGGAGAGAGGGCCTTATTTTTTTTAAAGACATA 2280  
ATAAACTATATTAACACTAAAAAAAAAAAAAAAAAAAAAA 2320  
AAAAAAAAAAAAAAAAAAAA 2338

FIG. 64B



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

mmFATP2 full length protein

```

      10      20      30      40
+-----+
MLPVLYTGLAGLLLLPLLLTCCCPYLLQDVRYFLRLANMA 40
RRVRSYRQRRPVRTILRAFLEQARKTPHKPFLFRDETLT 80
YAQVDRRSNQVARALHDQLGLRQGDCVALFMGNEPAYVWI 120
WLGLLKLGCMACLNYNIRAKSLLHCFQCCGAKVLLASPD 160
LOEAVEEVLP TLKKDAVS VFYVSRTSNTNGVDTILDKVDG 200
      210      220      230      240
+-----+
VSAEPTPESWRSEVTF TTPAVYIY TSGTTGLPKSGTINHH 240
RLRYGTSLAMSSGNHGGCHLYQQCPCSNSATLKIGLHGC 280
ILGWGYFNLGGANSQASQFWERLAGNTTSTVIQYIGELLR 320
YLCNTPQKPNDRDHKVKKALGNGLRGDVWREFIKRFGDIH 360
VYEFYASTEIGNIGFVNYPRKIGAVGRANYLQRKVARYELI 400
      410      420      430      440
+-----+
KYDVEKDEPV RDANGYCIKVPKGEVGLLVCKITQLTPFIG 440
YAGGKTQTEKKKLRDVFKKGDIYFNSGDLLMIDRENFVYF 480
HDRVGDTRFWKGENVATTEVADIVGLVDFVEEVNYYGVPV 520
PGHEGRIGMASLKIKENYEFNGKKLFQHIAEYLPSYARPR 560
FLRIQDTIEITGTFKHKVTLMEEGFNPTVIKDTLYFMDD 600
      610      620      630      640
+-----+
AEKTFVPMTENIYNAIIDKTLKL 623

```

FIG. 65



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

mmFATP3 partial DNA

```

      10      20      30      40
      |      |      |      |
GAAAGCTCTGAGAGCGGGTGCAGTCTGGCCTGGCGTCTCG 40
CGTACCTGGCCCCGGGAGCAGCCGACACACACCTTCCTCAT 80
CCACGGCGCGCAGCGCTTTAGCTACGCGGAGGCTGAGCGC 120
GAGAGCAACCGGATTGCTCGCGCCTTTCTGCGCGCACGGG 160
GCTGGACCGGGGGCCGCCGAGGCTCGGGCAGGGGCAGCAC 200

     210     220     230     240
     |     |     |     |
TGAGGAAGGCGCACGCGTGGCGCCTCCGGCTGGAGATGCG 240
GCTGCTAGAGGGACGACCGCGCCCCCTCTGGCACCCGGGG 280
CGACCGTGGCGCTGCTCCTCCCAGCGGGCCCGGATTTCT 320
TTGGATTTGGTTTCGGAAGCTGGCCTGCGCACG 360
GCCTTTGTGCCCACCGCTTTACGCCGAGGACCCCTGCTGC 400

     410     420     430     440
     |     |     |     |
ACTGCCTCCGCAGCTGCGGTGCGAGTGGCTCGTGCTGGC 440
CACAGAGTTCTTGGAGTCCCTGGAGCCGGACCTGCCGGCC 480
TTGAGAGCCATGGGGCTCCACCTATGGGCGACGGGCCCTG 520
AAACTAATGTAGCTGGAATCAGCAATTTGCTATCGGAAGC 560
AGCAGACCAAGTGGATGAGCCAGTGCCGGGGTACCTCTCT 600

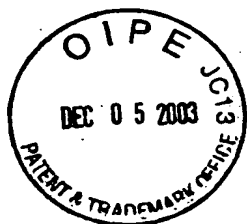
     610     620     630     640
     |     |     |     |
GCCCCCAGAACATAATGGACACCTGCCTGTACATCTTCA 640
CCTCTGGCACTACTGGCCTGCCCAAGGCTGCTCGAATCAG 680
TCATCTGAAGGTTCTACAGTGCCAGGGATTCTACCATCTG 720
TGTGGAGTCCACCAGGAGGACGTGATCTACCTCGCACTCC 760
CACTGTACCACATGTCTGGCTCCCTTCTGGGCATTGTGGG 800

     810     820     830     840
     |     |     |     |
CTGCTTGGGCATTGGGGCCACCGTGGTGCTGAAACCCAAG 840
TTCTCAGCTAGCCAGTTCTGGGACGATTGCCAGAAACACA 880
GGGTGACAGTGTTCCAGTACATTGGGGAGTTGTGCCGATA 920
CCTCGTCAACCAGCCCCCGAGCAAGGCAGAGTTTGACCAT 960
AAGGTGCGCTTGGCAGTGGGCAGTGGGTGCGCCCAGACA 1000

    1010    1020    1030    1040
    |     |     |     |
CCTGGGAGCGTTTCTGCGGCGATTTGGACCTCTGCAGAT 1040
ACTGGAGACGTATGGCATGACAGAGGGCAACGTAGCTACG 1080
TTCAATTACACAGGACGGCAGGGTGCAGTGGGGCGAGCTT 1120
CCTGGCTTTACAAGCACATCTTCCCCTTCTCCTTGATTCTG 1160
ATACGATGTCATGACAGGGGAGCCTATTGGAATGCCAG 1200

```

FIG. 66A



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

```

      1210      1220      1230      1240
      | | | | | | | | | | | | | | | | | |
GGGCACTGCATGACCACATCTCCAGGTGAGCCAGGCCTAC 1240
TGGTGGCCCCAGTGAGCCAGCAGTCCCCCTTCCTGGGCTA 1280
TGCTGGGGCTCCGGAGCTGGCCAAGGACAAGCTGCTGAAG 1320
GATGTCTTCTGGTCTGGGGACGTTTTCTTCAATACTGGGG 1360
ACCTCTTGGTCTGTGATGAGCAAGGCTTTCTTCACTTCCA 1400
      1410      1420      1430      1440
      | | | | | | | | | | | | | | | | | |
CGATCGTACTGGAGACACCATCAGGTGGAAGGGAGAGAAT 1440
GTGGCCACAACCTGAAGTGGCTGAGGTCTTGGAGACCCTGG 1480
ACTTCCTTCAGGAGGTGAACATCTATGGAGTCACGGTGCC 1520
AGGGCACGAAGGCAGGGCAGGCATGGCGGCCTTGGCTCTG 1560
CGGCCCCCGCAGGCTCTGAACCTGGTGCAGCTCTACAGCC 1600
      1610      1620      1630      1640
      | | | | | | | | | | | | | | | | | |
ATGTTTCTGAGAACTTGCCACCGTATGCCCCGACCTCGGTT 1640
TCTCAGGCTCCAGGAATCTTTGGCCACTACTGAGACCTTC 1680
AAACAGCAGAAGGTTAGGATGGCCAATGAGGGCTTTGACC 1720
CCAGTGTACTGTCTGACCCACTCTATGTTCTGGACCAAGA 1760
TATAGGGGGCCTACCTGCCCCCTCACACCTGCCCCGGTACAGT 1800
      1810      1820      1830      1840
      | | | | | | | | | | | | | | | | | |
GCCCTCCTGTCTGGAGACCTTCGAATCTGAAACCTTCCAC 1840
TTGAGGGGAGGGGCTCGGAGGGTACAGGCCACCATGGCTGC 1880
ACCAGGGGAGGGTTTTTCGGGTATCTTTTGTATATGGAGTCA 1920
TTATTTTGTAAATAAACAGCTGGAGCTTAAAAAAAAAAAAAA 1960
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA 1998

```

FIG. 66B



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

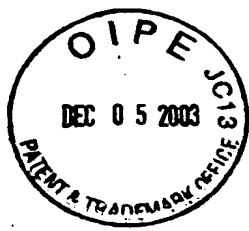
mmFATP3 partial protein

```

      10      20      30      40
+-----+
ESSESGCSLAWRLAYLAREQPTHFLIHGAQRFSYAEAER 40
ESNRIARAFLRARGWTGGRRGSGRGSTEEGARVAPPAGDA 80
AARGTTAPPLAPGATVALLLPAGPDFLWIWFGGLAKAGLRT 120
AFVPTALRRGPPLHCLRSCGASALVLATEFLESLEPDLP 160
LRAMGLHLWATGPETNVAGISNLLSEAADQVDEPVPGYLS 200
      210      220      230      240
+-----+
APQNIIMDTCLYIFTSGTTGLPKAARISHLKVLCQGFYHL 240
CGVHQEDVIYLALPLYHMSGSLGIVGCLGIGATVVLKPK 280
FSASQFWDDCQKHRVTVFQYIGELCRYLVNQPPSKAEFDH 320
KVRLAVGSGLRPDTWERFLRRFGPLQILETYGMTEGNVAT 360
FNYTGRQGAVGRASWLYKHIFPFSLIRYDVMTGEPIRNAQ 400
      410      420      430      440
+-----+
GHCMTTSPGEPGLLVAPVVSQOSPFLGYAGAPELAKDKLLK 440
DVFWSGDVFFNTGDLLVCDEQGFLHFHDRTGDTIRWKGEN 480
VATTEVAEVLETLDLFLOEVNIYGVTVPGHEGRAGMAALAL 520
RPPQALNLVOLYSHVSENLPYPARPRFLRLQESLATTETF 560
KQKVRMANEGFDPSVLSDPYVLDQDYGAYLPLTPARYS 600
      610      620      630      640
+-----+
ALLSGDLR! 609
```

FIG. 67

## FIG. 68A



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

1210	1220	1230	1240
GGGGCCTGTGGCTTCAATAGCCGCATCCTGTCCTTTGTGT 1240			
ACCCTATCCGTTTGGTACGTGTCAATGAGGATACCATGGA 1280			
ACTGATCCGGGGACCCGATGGAGTCTGCATTCCCTGTCAA 1320			
CCAGGTCAGCCAGGCCAGCTGGTGGGTTCGCATCATCCAGC 1360			
AGGACCCTCTGCGCCGTTTCGACGGGTACCTCAACCAGGG 1400			

1410	1420	1430	1440
TGCCAACAACAAGAAGATTGCTAATGATGTCTTCAAGAAG 1440			
GGGGACCAAGCCTACCTCACTGGTGACGTCCTGGTGATGG 1480			
ATGAGCTGGGTTACCTGTACTTCCGAGATCGCACTGGGGA 1520			
CACGTTCCGCTGGAAAGGGGAGAATGTATCTACCACTGAG 1560			
GTGGAGGGCACACTCAGCCGCCTGCTTCATATGGCAGATG 1600			

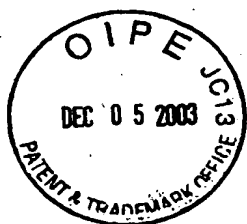
1610	1620	1630	1640
TGGCAGTTTATGGTGTGAGGTGCCAGGAACTGAAGGCCG 1640			
AGCAGGAATGGCTGCCGTTGCAAGTCCCATCAGCAACTGT 1680			
GACCTGGAGAGCTTTGCACAGACCTTGAAAAAGGAGCTGC 1720			
CTCTGTATGCCCCGCCCATCTTCCTGCGCTTCTTGCCTGA 1760			
GCTGCACAAGACAGGGACCTTCAAGTTCCAGAAGACAGAG 1800			

1810	1820	1830	1840
TTGCGGAAGGAGGGCTTTGACCCATCTGTTGTGAAAGACC 1840			
CGCTGTTCTATCTGGATGCTCGGAAGGGCTGCTACGTTGC 1880			
ACTGGACCAGGAGGCCTATACCCGCATCCAGGCAGGCGAG 1920			
GAGAAGCTGTGATTTCCCCCTACATCCCTCTGAGGGCCAG 1960			
AAGATGCTGGATTTCAGAGCCCTAGCGTCCACCCAGAGGG 2000			

FIG. 68B





Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

2010	2020	2030	2040
TCCTGGGCAATGCCAGACCAAAGCTAGCAGGGCCCGCACC 2040			
TCCGCCCCTAGGTGCTGATCTCCCCTCTCCCAAAGTCCA 2080			
AGTGACTCACTGCCGCTTCCCCGACCCTCCAGAGGCTTTC 2120			
TGTGAAAGTCTCATCCAAGCTGTGTCTTCTGGTCCAGGCG 2160			
TGGCCCCCTGGCCCCAGGGTTTCTGATAGGCTCCTTTAGGA 2200			
2210	2220	2230	2240
TGGTATCTTGGGTCCAGCGGGCCAGGGTGTGGGAGAGGAG 2240			
TCACTAAGATCCCTCCAATCAGAAGGGAGCTTACAAAGGA 2280			
ACCAAGGCAAAGCCTGTAGACTCAGGAAGCTAAGTGGCCA 2320			
GAGACTATAGTGGCCAGTCATCCCATGTCCACAGAGGATC 2360			
TTGGTCCAGAGCTGCCAAAGTGTCACCTCTCCCTGCCTGC 2400			
2410	2420	2430	2440
ACCTCTGGGGAAAAGAGGACAGCATGTGGCCACTGGGCAC 2440			
CTGTCTCAAGAAGTCAGGATCACACACTCAGTCCTTGTTT 2480			
CTCCAGGTTCCCTTGTTCTTGTCTCGGGGAGGGAGGGACG 2520			
AGTGTCCTGTCTGTCTTCCCTGCCTGTCTGTGAGTCTGTG 2560			
TTGCTTCTCCATCTGTCCTAGCCTGAGTGTGGGTGGAACA 2600			
2610	2620	2630	2640
GGCATGAGGAGAGTGTGGCTCAGGGGCAATAAACTCTGC 2640			
CTTGACTCCTCTTAAAAAAAAAAAAAAAAAAAAAAAAAAAA 2680			
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA 2710			

FIG. 68C



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

mmFATP4 full length protein

```

      10      20      30      40
      |-----|
MLLGASLVGALLFSKLVLPWTOVGFSLLLLYLGGSGGWR 40
FIRVFIKTVRRDIFGGMVLLKVTKVRRYLOERKTVPLLF 80
ASMVQRHPDKTALIFEGTDTHWTFRQLDEYSSSVANFLQA 120
RGLASGNVVALFMENRNEFVGLWLGMALGVEAALINTNL 160
RRDALRHCLDTSKARALIFGSEMASAICEIHASLEPTLSL 200
      210      220      230      240
      |-----|
FCSGSWEPSTVPVSTEHLDPLLEDAPKHLPSHPDKGFTDK 240
LFYIYTSGETTGLPKAAIVVHSRYRMAVLYYGFRMRPDD 280
IVYDCLPLYHSSRKHRGDWQCLLHGTMVVIRKKFSASRFW 320
DDCIKYNCTVVQYIGELCRYLLNQPPREAESRHKVRMALG 360
NGLRQSIWTDFFSSRFHIPQVAEFYGATECNCNCSLGNFDSRV 400
      410      420      430      440
      |-----|
GACGFNSRILSFVYPIRLVRVNEDTMELIRGPDGVCIPCC 440
PGQPGQLVGRIIQQDPLRRFDGYLNCGANNKKIANDVFKK 480
GDQAYLTGDVLVMDLGYLYFRDRTGDTFRWKGENVSTTE 520
VEGTLRLLHMADVAVYGVVPGTEGRAGMAAVASPI SNC 560
DLESFAOTLKKELPLYARPIFLRFLPELHKTGTGFKFKTE 600
      610      620      630      640
      |-----|
LRKEGFDPSPVVKDPLFYLDARKGCYVALDQEAAYTRIQAGE 640
EKL 643

```

FIG. 69



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

mmFATP5 full length DNA

```

      10      20      30      40
+-----+
CACTCATCAGAGCTAAGAGAGACTACACGCTCTCATCTAC 40
TTCAGAAAGAGCCAATGCCATGGGTATTTGGAAGAACTA 80
ACCTTACTGCTGTTGCTGCTTCTGCTGGTTGGCCTGGGGC 120
AGCCCCCATGGCCAGCAGCTATGGCTCTGGCCCTGCGTTG 160
GTTCTTGGGAGACCCACATGCCTTGTGCTGCTTGGCTTG 200
      210      220      230      240
+-----+
GCATTGCTGGGCAGACCCTGGATCAGCTCCTGGATGCCCC 240
ACTGGCTGAGCCTGGTAGGAGCAGCTCTTACCTTATTCCT 280
ATTGCCTCTACAGCCACCCCCAGGGCTACGCTGGCTGCAT 320
AAAGATGTGGCTTTCACCTTCAAGATGCTTTTCTATGGCC 360
TAAAGTTCAGGCGACGCCTTAACAACATCCTCCAGAGAC 400
      410      420      430      440
+-----+
CTTTGTGGATGCTTTAGAGCGGCAAGCACTGGCATGGCCT 440
GACCGGGTGGCCTTGGTGTGTACTGGGTCTGAGGGCTCCT 480
CAATCACAAATAGCCAGCTGGATGCCAGGTCTGTGTCAGGC 520
AGCATGGGTCTTGAAGCAAAGCTGAAGGATGCCGTAATC 560
CAGAACACAAGAGATGCTGCTGCTATCTTAGTTCTCCCGT 600
      610      620      630      640
+-----+
CCAAGACCATTTCTGCTTTGAGTGTGTTTCTGGGGTTGGC 640
CAAGTTGGGCTGCCCTGTGGCCTGGATCAATCCACACAGC 680
CGAGGGATGCCCTTGCTACACTCTGTACGGAGCTCTGGGG 720
CCAGTGTGCTGATTGTGGATCCAGACCTCCAGGAGAACCT 760
GGAAGAAGTCCTTCCCAAGCTGCTAGCTGAGAACATTAC 800
      810      820      830      840
+-----+
TGCTTCTACCTTGGCCACAGCTCACCCACCCGGGAGTAG 840
AGGCTCTGGGAGCTTCCCTGGATGCTGCACCTTCTGACCC 880
AGTACCTGCCAGCCTTCGAGCTACGATTAAGTGGAAATCT 920
CCTGCCATATTCATCTTTACTTCAGGGACCACTGGACTCC 960
CAAAGCCAGCCATCTTATCACATGAGCGGGTCATACAAGT 1000
      1010      1020      1030      1040
+-----+
GAGCAACGTGCTGTCCTTCTGTGGATGCAGAGCTGATGAT 1040
GTGGTCTATGACGTCCTACCTCTGTACCATACGATAGGGC 1080
TTGTCCTTGGATTCCCTTGGCTGCTTACAAGTTGGAGCCAC 1120
CTGTGTCCTGGCCCCCAAGTTCTCTGCCTCCCGATTCTGG 1160
GCTGAGTGCCGGCAGCATGGCGTAACAGTGATCTTGTATG 1200

```

FIG. 70A



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

1210	1220	1230	1240
TGGGTGAAATCCTGCGGTACTTGTGTAACTGCCCTGAGCA 1240			
ACCAGAAGACAAGATACATACAGTGCCTTGGCCATGGGA 1280			
ACTGGACTTCGGGCAAATGTGTGGAAAACTTCCAGCAAC 1320			
GCTTTGGTCCCATTCGGATCTGGGAATTCTACGGATCCAC 1360			
AGAGGGCAATGTGGGCTTAATGAACTATGTGGGCCACTGC 1400			
1410	1420	1430	1440
GGGGCTGTGGGAAGGACCAGCTGCATCCTTCGAATGCTGA 1440			
CTCCCTTTGAGCTTGTACAGTTCGACATAGAGACAGCAGA 1480			
GCCTCTGAGGGACAAACAGGGTTTTTGCATTCTGTGGAG 1520			
CCAGGAAAGCCAGGACTTCTTTTGACCAAGGTTCGAAAGA 1560			
ACCAACCCTTCCTGGGCTACCGTGTTCCAGGCCGAGTC 1600			
1610	1620	1630	1640
CAATCGGAACTTGTTCGAATGTACGACGCGTAGGAGAC 1640			
CTGTACTTCAACACTGGGGACGTGCTGACCTTGGACCAGG 1680			
AAGGCTTCTTCTACTTTCAAGACCGCCTTGGTGACACCTT 1720			
CCGGTGGAAGGGCGAAAACGTATCTACTGGAGAGGTGGAG 1760			
TGTGTTTTGTCTAGCCTAGACTTCCTAGAGGAAGTCAATG 1800			
1810	1820	1830	1840
TCTATGGTGTGCCTGTGCCAGGGTGTGAGGGTAAGGTTGG 1840			
CATGGCTGCTGTGAACTGGCTCCTGGGAAGACTTTTGAT 1880			
GGGCAGAAGCTATACCAGCATGTCCGCTCCTGGCTCCCTG 1920			
CCTATGCCACACCTCATTTTCATCCGTATCCAGGATTCCCT 1960			
GGAGATCACAAACACCTACAAGCTGGTAAAGTCACGGCTG 2000			
2010	2020	2030	2040
GTGCGTGAGGGTTTTGATGTGGGGATCATTGCTGACCCCC 2040			
TCTACATACTGGACAACAAGGCCAGACCTTCCGGAGTCT 2080			
GATGCCAGATGTGTACCAGGCTGTGTGTGAAGGAACCTGG 2120			
AATCTCTGACCACCTAGCCAAGTGAAGGCAATCCAAAAG 2160			
TGTAAGATTGACACTAGTCAGCTTCACAAAGTTGTCCGG 2200			
2210	2220	2230	2240
GTTCCAGATGCCCAGTGGCCAGTAGTACTTAGAGAATAAA 2240			
CTTGAATGTGTATACAAAAAAAAAAAAAAAAAAAAAAAAA 2277			

FIG. 70B



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

mmFATP5 full length protein

10 20 30 40  
MGIWKKLTLLLLLLLLVGLGQPPWPAAMALALRWFLGDPT 40  
CLVLLGLALLGRPWISSWMPHWLSLVGAALTFLPLLOPP 80  
PGLRWLHKDVAFTFKMLFYGLKFRRRLNKHPPETFVDALE 120  
RQALAWPDRVALVCTGSEGSSITNSQLDARSCQAAWVLKA 160  
KLKDAVIQNTRDAAAILVLPSKITISALSVFLGLAKLGCPV 200  
210 220 230 240  
AWINPHSRGMPLLSVRSSGASVLIVDPDLQENLEEVLPK 240  
LLAENIHCFYLGHSSTPGVEALGASLDAAPSDVPASLR 280  
ATIKWKSPAIFIFTSGTTGLPKPAILSHERVIOVSNVLSF 320  
CGCRADDVVYDVLPLYHTIGLVLGFLGCLQVGATCVLAPK 360  
FSASRFAECRQHGVTVILYVGEILRYLCNVPEQPEDKIH 400  
410 420 430 440  
TVRLAMGTGLRANVWKNFQORFGPIRIWEFYGSTEGNVGL 440  
MNYVGHCGAVGRTSCILRMLTPFELVQFDIETAELRDKQ 480  
GFCIPVEPGKPGLLLTKVRKNQPFLLGYRGSQAESNRKLVA 520  
NYRRVGDLYFNTGDVLTLDQEGFFYFQDRLGDTFRWKGEN 560  
VSTGEVECVLSSLDLFLEEVNYYGVPVPGCEGKVGMAAVKL 600  
610 620 630 640  
APGKTFDGQKLYQHVRSWLPAYATPHFIRIQDSLEITNTY 640  
KLVKSRLVREGFDVGIIADPLYILDNKAQTFRSLMPDVYQ 680  
AVCEGTWNL 689

FIG. 71



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

dmFATP partial DNA

```

      10      20      30      40
      |      |      |      |
GCTCTCTGGGCCTATATCAAGCTGCTGAGGTACACGAAGC 40
GCCATGAGCGGCTCAACTACACGGTGGCGGACGTCTTTCGA 80
ACGAAATGTTTCAGGCCCATCCGGACAAGGTGGCTGTGGTC 120
AGTGAGACGCAACGCTGGACCTTCCGTCAGGTGAACGAGC 160
ATGCGAACAAGGTGGCCAATGTGCTGCAGGCTCAGGGCTA 200
      210      220      230      240
      |      |      |      |
CAAAAAGGGCGATGTGGTGGCCCTGTTGCTGGAGAACCGC 240
GCCGAGTACGTGGCCACCTGGCTGGGTCTCTCCAAGATCG 280
GTGTGATCACACCGCTGATCAACACGAATCTGCGCGGTCC 320
CTCCCTGCTGCACAGCATCACGGTGGCCCATTTGCTCGGCT 360
CTCATTTACGGCGAGGACTTCCTGGAAGCTGTCACCGACG 400
      410      420      430      440
      |      |      |      |
TGGCCAAGGATCTGCCAGCGAACCTCACACTCTTCCAGTT 440
CAACAACGAGAACAACAACAGCGAGACGGAAAAGAACATA 480
CCGCAGGCCAAGAATCTGAACGCGCTGCTGACCACGGCCA 520
GCTATGAGAAGCCTAACAAGACGCAGGTTAACCACCACGA 560
CAAGCTGGTCTACATCTACACCTCCGGCACACAGGATTG 600
      610      620      630      640
      |      |      |      |
CCAAAGGCTGCGGTTATCTCTCACTCCCGTTATCTGTTTA 640
TCGCTGCTGGCATCCACTACACCATGGGTTTCCAGGAGGA 680
GGACATCTTCTACACGCCCTTGCCTTTGTACCACACCGCT 720
GGTGGCATTATGTGCATGGGTGAGTCGGTGCTCTTTGGCT 760
CCACGGTCTCCATTTCGCAAGAAGTTCTCGGCATCCAATA 800
      810      820      830      840
      |      |      |      |
TTTCGCCGACTGCGCCAAGTATAATGCAACTATTGGTCAG 840
TATATCGGTGAGATGGCTCGCTACATTCTAGCTACGAAAC 880
CCTCGGAATACGACCAGAAACACCGAGTGCGTCTGGTCTT 920
TGGAACCGGACTGCGACCGCAGATTTGGCCACAGTTTGTG 960
CAGCGCTTCAACATTGCCAAGGTTGGCGAGTTCTACGGCG 1000
      1010      1020      1030      1040
      |      |      |      |
CCACCGAGGGTAATGCGAACATCATGAATCATGACAACAC 1040
GGTGGGCGCCATCGGCTTTGTGTGCGGCATCCTGCCCAAG 1080
ATCTACCCAATCTCGATCATTGCGCCGATCCGGACACCG 1120
GAGAGCCCATTAGAGATAGGAATGGCCTATGCCAACTGTG 1160
CGCTCCCAACGAGCCAGGCGTATTCATCGGCAAGATCGTC 1200

```

FIG. 72A



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

```

      1210      1220      1230      1240
      +-----+-----+-----+-----+
AAAGGAAATCCTTCTCGCGAATTCCTCGGATACGTCGATG 1240
AAAAGGCCTCCGCGAAGAAGATTGTTAAGGATGTGTTCAA 1280
GCATGGCGATATGGCTTTCATCTCCGGAGATCTGCTGGTT 1320
GCCGACGAGAAGGGTTATCTGTACTTCAAGGATCGCACCG 1360
GTGACACCTTCCGCTGGAAGGGCGAGAATGTTTCCACCAG 1400

      1410      1420      1430      1440
      +-----+-----+-----+-----+
CGAGGTGGAGGGCGCAAGTCAGCAATGTGGCCGGTTACAAG 1440
GATACCGTCGTTTACGGCGTAACCATTCCGCACACCGAGG 1480
GAAGGGCCGGCATGGCCGCCATCTATGATCCGGAGCGAGA 1520
ATTGGACCTCGACGTCTTCGCCGCTAGCTTGGCCAAGGTG 1560
CTGCCCGCGTACGCTCGTCCCCAGATCATTGATTGCTCA 1600

      1610      1620      1630      1640
      +-----+-----+-----+-----+
CCAAGGTGGACCTGACTGGAACCTTTAAGCTGCGCAAGGT 1640
AGACCTGCAGAAGGAGGGCTACGATCCGAACGCGATCAAG 1680
GACGCGCTGTACTACCAGACTTCCAAGGGTCGGTACGAGC 1720
TGCTCACGCCCCAGGTTTACGACCAGGTGCAGCGCAACGA 1760
AATCCGCTTCTAAGAGCTGCAATAGAGTTGTGTCTGAACC 1800

      1810      1820      1830      1840
      +-----+-----+-----+-----+
TTGCCTTTTGCCCAATATGCTGTTAATTAGTTTGTAAGGC 1840
TAAGTGTAGTAGAGGAAAATCGGGGGAAATCGGCAGCAAA 1880
GATCATTCAGCCTAGGAGAGATGCATCCGAAGCACATTTT 1920
CATGTCAACAATGCACTTTTGTATATCGTAAGCATATATA 1960
TATCGTATATCGTAAACGTAGTTGTATCTGCATTTGTGTA 2000

      2010      2020      2030      2040
      +-----+-----+-----+-----+
GATGATAGCCTCCTATACGCATTTCAATTGTTTTTAGCGT 2040
GCTAAAGAACCTTGTTAAATGCAATTTTCAAGCTATTGTTA 2080
GTCAGTTTTAGTGGCATTACACTTCCATTCTCGTTGCGT 2120
TTCGTTTTTGCTGTACATATGAGAAGCTCTGATGTTTTT 2160
GTATCAAATAAAGTTTTTTCCTTACCACGGACCACGTGA 2200

      2210      2220      2230      2240
      +-----+-----+-----+-----+
AAAAAAAAAAAAAAAAAAAAA 2221

```

FIG. 72B



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

dm FATP partial protein

10 20 30 40  
ALWAYIKLLRYTKRHERLNYTVADVFERNVQAHPDKVAVV 40  
SETQRWTFRQVNEHANKVANVLOAQGYKKGDVALLLENR 80  
AEYVATWLGLSKIGVITPLINTNLRGPSLLHSITVAHCSA 120  
LIYGEDFLEAVTDVAKDLPANLTLFQFNENNNSETEKNI 160  
POAKNLNALLTTASYEKPNTQVNHHDKLVYIYTSGTTGL 200  
210 220 230 240  
PKAAVISHSRYLFIAGGIHYTMGFQEEDIFYTPLPLYHTA 240  
GGIMCMGQSVLFGSTVSIRKKFSASNYFADCAKYNATIGQ 280  
YIGEMARYILATKPSEYDQKHRVRLVFGNGLRPQIWPQFV 320  
QRFNIAKVGEFYGATEGNANIMNHDNTVGAIGFVSRILPK 360  
IYPISIRADPDTGEPIDRNLGLCOLCAPNEPGVFIGKIV 400  
410 420 430 440  
KGNPSREFLGYVDEKASAKKIVKDVFKHGDMAFISGDLLV 440  
ADEKGYLYFKDRTGDTFRWKGENYSTSEVEAQVSNVAGYK 480  
DTVYVGVTIPHTEGRAGMAAIYDPERELDLVFAASLAKV 520  
LPAYARPOIIRLLTKVDLTGTFLRKVDLQKEGYDPNAIK 560  
DALYYOTSKGRYELLTPQVYDQVQRNEIRF 590

FIG. 73





Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

drFATP partial DNA

10 20 30 40  
AGTGTAGATACACAGGAACGTTTAAAATCCAGAAGACCA 40  
GACTGCAAAGGGAAGGATACGATCCACGGCTCACAACCTGA 80  
CCAGATCTACTTCCTAAACTCCAGAGCAGGGCGTTACGAG 120  
CTTGTCAACGAGGAGCTGTACAATGCATTTGAACAAGGGC 160  
AGGATTTCCCTTT 173

FIG. 74

drFATP partial protein

10 20 30 40  
SVDTTGTGFKIQKTRLQREGYDPRLTTDQIYFLNSRAGRYE 40  
LVNEELYNAFEQGQDFP 57

FIG. 75



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

ceFATPa coding only DNA

```

      10      20      30      40
+-----+
ATGAAGCTGGAGGAGCTTGTGACAGTTATGCTTCTCACAG 40
TGGCTGTCATTGCTCAGAATCTTCCGATTGGAGTAATATT 80
GGCTGGAGTTCTTATTTTATACATCACAGTGTTTCATGGA 120
GATTTTCATTTATAGAAGTTATCTTACGTTGAATAGGGATT 160
TAACAGGATTGGCTCTAATTATTGAAGTCAAAATCGACCT 200
      210      220      230      240
+-----+
ATGGTGGAGGTTGCATCAGAATAAAGGAATCCATGAACTG 240
TTTTTGGATATTGTGAAAAAGAATCCAAATAAGCCGGCGA 280
TGATTGACATCGAGACGAATACAACAGAAACATACGCAGA 320
GTTCAATGCACATTGTAATAGATATGCCAATTATTTCCAG 360
GGTCTTGGCTATCGATCCGGAGACGTTGTCGCCTTGTACA 400
      410      420      430      440
+-----+
TGGAGAACTCGGTCGAGTTTGTGGCCGCGTGGATGGGACT 440
CGCAAAAATCGGAGTTGTAACGGCTTGGATCAACTCGAAT 480
TTGAAAAGAGAGCAACTTGTTTCATTGTATCACTGCGAGCA 520
AGACAAAGGCGATTATCACAAGTGTAACACTTCAGAATAT 560
TATGCTTGATGCTATCGATCAGAAGCTGTTTGATGTTGAG 600
      610      620      630      640
+-----+
GGAATTGAGGTTTACTCTGTCTGGAGAGCCCAAGAAGAATT 640
CTGGATTCAAGAATCTCAAGAAGAAGTTGGATGCTCAAAT 680
TACTACGGAACCAAAGACCCCTTGACATAGTAGATTTTAAA 720
AGTATTCTTTGCTTCATCTATACAAGTGGTACTACTGGAA 760
TGCCAAAAGCCGCTGTCATGAAGCACTTCAGATATTACTC 800
      810      820      830      840
+-----+
GATTGCCGTTGGAGCCGCAAAATCATTGGAATCCGCCCT 840
TCTGATCGTATGTACGTCTCGATGCCAATTTATCACACTG 880
CAGCTGGAATTCTTGGAGTTGGGCAAGCTCTGTTGGGTGG 920
ATCATCGTGTGTCATTAGAAAAAAATTCTCGGCTAGCAAC 960
TTTTGGAGGGGATTGTGTAAAGTATGATTGTACAGTTTCAC 1000
      1010      1020      1030      1040
+-----+
AATACATTGGAGAGATTTGTCTGGTACTTGTTGGCTCAGCC 1040
AGTTGTGGAAGAGGAATCCAGGCATAGAATGAGATTGTTG 1080
GTTGGAACCGGACTCCGTGCTGAAATCTGGCAACCATTTG 1120
TAGATCGATTCCGTGTCAGAATTGGAGAACCTTTATGGTTC 1160
AACTGAAGGAACCTTCATCTCTCGTGAACATTGACGGACAT 1200

```

FIG. 76A



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

1210	1220	1230	1240
GTCGGAGCTTGCGGATTCTTGCCAATATCCCCATTAACAA 1240			
AGAAAATGCATCCGGTTTCGATTAATTAAGGTTGATGATGT 1280			
CACTGGAGAAGCAATCCGAACCTCCGATGGACTTTGCATT 1320			
GCATGTAATCCAGGAGAGTCTGGAGCAATGGTGTGACGA 1360			
TCAGAAAAATAATCCATTATTGCAATTCGAGGGATATCT 1400			
1410	1420	1430	1440
GAATAAGAAGGAAACGAATAAAAAGATTATCAGAGATGTC 1440			
TTCGCAAAGGGAGATAGTTGCTTTTTGACTGGAGATCTTC 1480			
TTCATTGGGATCGTCTTGGTTATGTATATTTCAAGGATCG 1520			
TACTGGAGATACTTTCCGTTGGAAGGGAGAGAATGTGTGCG 1560			
ACTACTGAAGTCGAGGCAATTCTTCATCCAATTACTGGAT 1600			
1610	1620	1630	1640
TGTCTGATGCAACTGTTTATGGTGTAGAGGTTCTCAAAG 1640			
AGAGGGAAGAGTTGGAATGGCGTCAGTTGTTGAGTTGTA 1680			
TCGCATGAGGAAGATGAACTCAATTTGTTTCATAGAGTTG 1720			
GAGCAAGACTTGCCTCTTCGCTTACCAGCTACGCGATTCC 1760			
TCAGTTTATGCGAATTTGTCAGGATGTTGAGAAAACAGGT 1800			
1810	1820	1830	1840
ACATTCAAACCTTGTGAAGACGAATCTACAACGATTAGGTA 1840			
TCATGGATGCTCCTTCAGATTCAATTTACATCTACAATTC 1880			
TGAAAATCGCAATTTTGTGCCGTTTCGACAATGATTTGAGG 1920			
TGCAAGGTCTCACTGGGAAGTTATCCATTTTAA 1953			

FIG. 76B



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

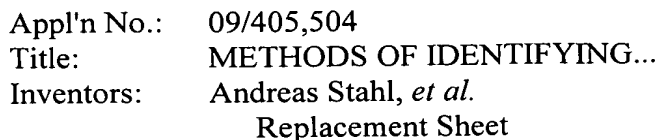
ceFATPa coding only protein

```

      10      20      30      40
      |-----|
MKLEELVTVMLLTVAVIAQNLP IGVILAGVL ILYITVVHG 40
DFIYRSYLT LNRDLTGLAL IIEVKIDLWRLHQNKG IHEL 80
FLDIVKKNPNKPAMIDIETNTTET YAEFNAHCNRYANYFQ 120
GLGYRSGDVVALYMENSVEFVAAWMGLAKIGVVTAWINSN 160
LKREQLVHCITASKTKAIITSVT LQNI MLDAIDQKLF DVE 200
      210      220      230      240
      |-----|
GIEVYSVGEPKKNSGFKNLKKK LDAQITTEPKTLDIVDFK 240
SILCFIYTSGTTGMPKAAVMKHFRYY SIAVGAAKSFGIRP 280
SDRMVVSMP IYHTAAGILGVGQALLGGSSCVIRKKFSASN 320
FWRDCVKYDCTVSQYIGEICRYLLAQP VVEEESRHRMRL 360
VGNGLRAE I WQPFVDRFRVRIGEL YGSTEGTSSLVNI DGH 400
      410      420      430      440
      |-----|
VGACGFLPISPLTKKMHPVRLIKVDDVTGEAIRTSDGLCI 440
ACNPGESGAMVSTIRKNNPLLOFEGYLNKKETNKKIIRDV 480
FAKGDSCLFTGDLLHWDRLGYVYFKDRTGDTFRWKGENVS 520
TTEVEAILHPITGLSDATVYGVEVPQREGRVGMASVVRVV 560
SHEEDETQFVHRVGARLASSLT SYAIPQFMRICQDVEK TG 600
      610      620      630      640
      |-----|
TFKLVKTNLQRLGIMDAPSDSIYIYNSENRNFPFDNDLR 640
CKVSLGSYPF 650

```

FIG. 77



10 20 30 40

ATGAGGGAAATGCCGGACAGTCCCAAGTTTGC GTTAGTCA 40  
CGTTTGTGTGTATGCAGTGGTTTTGTACAATGTCAACAG 80  
CGTTTTCTGGAAATTTGTATTCATCGGATATGTTGTATTT 120  
AGGCTGCTTCGCACTGATTTTGGGAAGAAGAGCACTTGCCA 160  
CGTTACCTAGAGATTTTGC GGGACTGAAGCTCTTAATATC 200

210 220 230 240

GGTTAAGTCGACAATTCGTGGCTTGTTC AAGAAAGATCGC 240  
CCAATTCATGAAATCTTTTTGAATCAGGTGAAACAGCATC 280  
CAAACAAAGTG GCGATTATTGAAATTGAAAGTGGTAGGCA 320  
GTTGACGTATCAAGAATTGAATGCGTTAGCTAATCAGTAT 360  
GCTAACCTTTACGTGAGTGAAGGTTACAAAATGGGCGACG 400

410 420 430 440

TTGTCGCTTTGTTTATGGAAAATAGCATCGACTTCTTTGC 440  
AATTTGGCTGGGACTTTCCAAGATTGGAGTCGTGTCGGCG 480  
TTCATCAACTCAAACCTTGAAGTTGGAGCCATTGGCACATT 520  
CGATTAATGTTTTCGAAGTGCAAATCATGCATTACCAATAT 560  
CAATCTGTTGCCGATGTTCAAAGCCGCTCGTGAAAAGAAT 600

610 620 630 640

CTGATCAGTGACGAGATCCACGTGTTTCTGGCTGGA ACTC 640  
AGGTTGATGGACGTCATAGAAGTCTTCAGCAAGATCTCCA 680  
TCTTTTCTCTGAGGATGAACCTCCAGTTATAGACGGACTC 720  
AATTTTAGAAGCGTTCTGTGTTATATTTACACTTCCGGTA 760  
CTACCGGAAATCCAAAGCCAGCCGTCATTAAACACTTCCG 800

810 820 830 840

TTACTTCTGGATTGCGATGGGAGCAGGAAAAGCATTTGGA 840  
ATTAATAAGTCAGACGTTGTGTACATTACGATGCCAATGT 880  
ATCACTCTGCCGCCGGTATCATGGGTATTGGATCATTAAT 920  
TGCATTCCGGGTCGACCGCTGTTATTAGGAAAAAGTTTTCG 960  
GCAAGCAACTTCTGGAAAGATTGCGTCAAGTACAACGTCA 1000

1010 1020 1030 1040

CAGCGACACAGTACATTGGAGAAATCTGCAGGTATCTTCT 1040  
GGCAGCGAATCCATGTCTTGAAGAGAAACAACACAACGTG 1080  
CGATTGATGTGGGGAAATGTTTTGAGAGGACAAATTTGGA 1120  
AAGAGTTTGTAGGAAGATTTGGAATTAAGAAAATTGGAGA 1160  
GTTGTACGGCTCAACAGAAGGAAACTCCAATATTGTTAAC 1200

FIG. 78A



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

1210	1220	1230	1240
GTGGATAACCATGTTGGAGCTTGTGGATTTCATGCCAATTT 1240			
ATCCCCATATTGGATCCCTCTACCCAGTTTCGACTTATTAA 1280			
GGTTGATAGAGCCACTGGAGAGCTTGAACGTGATAAGAAC 1320			
GGACTCTGTGTGCCGTGTGTGCCTGGTGAAACTGGGGAAA 1360			
TGGTTGGCGTTATCAAGGAGAAAGATATTCTTCTAAAGTT 1400			
1410	1420	1430	1440
CGAAGGATATGTCAGCGAAGGGGATACTGCAAAGAAAATC 1440			
TACAGAGATGTGTTCAAGCATGGAGATAAGGTGTTTGCAA 1480			
GTGGAGATATTCTTCATTGGGATGATCTTGGATACTTGTA 1520			
CTTTGTGGACCGTTGTGGAGACACTTTCCGTTGGAAAGGG 1560			
GAGAACGTGTCAACTACTGAAGTTGAGGGAATTCTTCAGC 1600			
1610	1620	1630	1640
CTGTGATGGATGTGGAAGATGCAACTGTTTATGGAGTCAC 1640			
TGTCGGTAAATGGAGGGGCGTGCCGGAATGGCTGGTATT 1680			
GTCGTCAAGGATGGAACGGATGTTGAGAAATTCATCGCCG 1720			
ATATTACTTCTCGACTGACCGAAAAATCTGGCGTCTTACGC 1760			
AATCCCTGTTTTTCATTTCGGCTGTGCAAGGAAGTTGATCGA 1800			
1810	1820	1830	1840
ACCGGAACCTTCAAACCTCAAGAAGACTGATCTTCAAAAAC 1840			
AAGGTTACGACCTGGTTGCTTGTAAGGAGACCCCAATTTA 1880			
CTACTGGTCAGCTGCAGAAAAATCCTACAAACCACTGACT 1920			
GACAAAATGCAACAGGATATTGACACTGGTGTTTATGATC 1960			
GCATTTAA 1968			

FIG. 78B



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

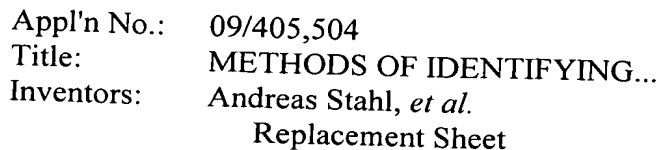
ceFATPb coding only protein

```

      10      20      30      40
MREMPDSPKFALVTFVYAVVLYNVNSVFWKFVFIGYVVF 40
RLLRTDFGRRALATLPRDFAGLKLLISVKSTIRGLFKKDR 80
PIHEIFLNQVKQHPNKVAIIIEISGRQLTYQELNALANQY 120
ANLYVSEGYKMGDVVALFMENSIDFFAIWLGLSKIGVVS 160
FINSNLKLEPLAHSINVSCKSCITNINLLPMFKAAREKN 200
      210      220      230      240
LISDEIHVFLAGTQVDGRHRSLOODLHLFSEDEPPVIDGL 240
NFRSVLCYIYTS GTTGNPKPAVIKHFYFWIAMGAGKAFG 280
INKSDVYIITPMYHSAAGIMGIGSLIAFGSTAVIRKKFS 320
ASNFWKDCVKYNVTATQYIGEICRYLLAANPCPEEKQHN 360
RLMWGNGLRGQIWKEFVGRFGIKKIGELYGSTEGNSNIV 400
      410      420      430      440
VDNHVGACGFMP IYPHIGSLYPVRLIKVDRATGELERDKN 440
GLCVPCVPGETGEMVGVIKEKDILLKFEGYVSEGDTAKKI 480
YRDVFKHGDVKVFASGDILHWDDLGYLYFVDRCGDTFRWKG 520
ENVSTTEVEGILQPVMDVEDATVYGVTVGKMEGRAGMAGI 560
VVKDGT DVEKFIADITSRLTENLASAIPVFIRLCKEVD 600
      610      620      630      640
TGTFKLKKTDLQKGYDLVACKGDP IYYWSAAEKSYKPLT 640
DKMQDDIDTGYYDRI 655

```

FIG. 79



10 20 30 40

ATGGCGTGATGCATCAGGCTCAGCTATACAATGATCTAG 40  
AGGAATTGCTAACTGGTCCATCAGTACCCATCGTTGCTGG 80  
AGCTGCTGGAGCTGCAGCTCTCACTGCCTACATTAACGCC 120  
AAATACCACATAGCCCATGATCTCAAGACCCTCGGTGGTG 160  
GATTGACACAATCGTCCGAAGCGATTGATTTTCATAAACCG 200

210 220 230 240

CCGCGTCGCACAAAAGCGCGTCTCAGCACACATCTTC 240  
CAGGAGCAGGTCCAAAAACAATCAAATCATCCCTTTCTTA 280  
TCTTTGAGGGCAAGACATGGTCTTACAAGGAGTTCTCTGA 320  
GGCATAACAGAGGGTCGCGAACTGGCTGATTGATGAGCTG 360  
GACGTACAAGTAGGGGAGATGGTCGCAATTGATGGCGGAA 400

410 420 430 440

ATAGTGCAGAGCACCTGATGCTTTGGCTTGCACCTTGATGC 440  
AATCGGTGCGGCTACGAGTTTTTTGAACTGGAACCTGACA 480  
GGGGCAGGGTTAATTCATTGCATAAAGCTATGCGAATGTC 520  
GATTCTGTTATCGCAGACATCGATATTAAAGCGAACATTGA 560  
ACCGTGCCGTGGCGAACTGGAGGAGACGGGCATCAACATT 600

610 620 630 640

CACTACTATGACCCATCCTTCATCTCATCGCTACCGAATA 640  
ACACGCCAATTCCCGACAGCCGCACTGAGAACATTGAATT 680  
AGATTCAGTACGAGGACTGATATACACATCTGGAACCACT 720  
GGTCTACCTAAAGGCGTGTTTATAAGCACTGGCCGCGAGC 760  
TTAGGACTGACTGGTCGATTTCAAAGTATCTAAATCTCAA 800

810 820 830 840

GCCACGGATCGAATGTATACATGTATGCCGCTCTACCAT 840  
GCCGCTGCACACAGCCTCTGTACAGCATCAGTTATTCATG 880  
GTGGAGGTACCGTGGTATTGAGCAGGAAATCTCACACAA 920  
GAAGTTCTGGCCTGAAGTTGTGGCTTCGGAAGCAAATATC 960  
ATTCAGTACGTTGGTGAATTAGGTCGATATCTCCTGAATG 1000

1010 1020 1030 1040

GTCCAAAGAGTCCTTACGACAGGGCCCATAAAGTCCAGAT 1040  
GGCGTGGGGCAATGGCATGCGTCCAGACGTGTGGGAAGCG 1080  
TTTCGTGAACGCTTCAACATACCAATTATTCATGAGCTCT 1120  
ATGCCGCAACCGATGGGCTCGGGTCAATGACCAATCGTAA 1160  
CGCGGGGCCCTTTTACAGCAAACCTGTATTGCGCTGCGAGGG 1200

FIG. 80A





Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

1210	1220	1230	1240
CTGATCTGGCACTGGAAATTTTCGAAATCAGGAAGTGCTGG 1240			
TCAAGATGGATCTCGATACTGATGAGATCATGAGAGATCG 1280			
CAATGGGTTTTGCGATACGATGCGCTGTCAATGAACCTGGA 1320			
CAGATGCTTTTTTCGGCTGACACCCGAAACTCTGGCTGGTG 1360			
CACCAAGCTACTACAACAACGAAACGGCCACACAGAGCAG 1400			
1410	1420	1430	1440
GCGGATTACAGATGTGTTTTCAAAGGGTGACCTGTGGTTC 1440			
AAGTCCGGTGACATGCTACGGCAAGACGCCGAAGGCCGCG 1480			
TCTACTTTGTTCGATCGACTAGGCGATACGTTCCGCTGGAA 1520			
ATCCGAAAACGTTTCTACCAATGAAGTCGCGGACGTGATG 1560			
GGCACATTTCTCAGATTGCTGAAACGAATGTATACGGTG 1600			
1610	1620	1630	1640
TCCTTGTGCCGGGTAACGATGGTTCGAGTGCGCAGCCTCAA 1640			
TTGTCATGGCAGACGGCGTGACAGAGTCGACATTCGCTTC 1680			
GCTGCCCTTGCAAAGCACGCCCGAGATCGGTTACCGGGTT 1720			
ATGCTGTACCACTGTTTCTGAGGGTAACTCCAGCACTTGA 1760			
ATATACGGGCACATTAAAGATTCAGAAAGGACGCCTCAAG 1800			
1810	1820	1830	1840
CAGGAAGGTATAGACCCAGATAAGATTTCCGGCGAAGATA 1840			
AGTTATACTGGCTGCCGCCTGGTAGCGATATATTTACC 1880			
ATTTGGAAAGATGGAGTGGCAGGGAATTGTAGATAAGCGT 1920			
ATACGGCTGTGA 1932			

FIG. 80B



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

chFATP coding only protein

```
      10      20      30      40
+-----+
MACMHQAQLYNDLEELLTGPSVPIVAGAAGAAALTAYINA 40
KYHIAHDLKTLGGGLTQSSEIDFINRRVAQKRVLTHHIF 80
QEQVQKQSNHPFLIFEGKTWSYKEFSEAYTRVANWLIDEL 120
DVQVGEMVAIDGGNSAEHMLWLALDAIGAATSFLNWNLT. 160
GAGLIHCIKLCECFVIADIDIKANIEPCERGELEETGINI 200
      210      220      230      240
+-----+
HYYDPSFISSLPNNTPIPSRTENIELDSVRGLIYTSGETT 240
GLPKGVIISTGRELRTDWSISKYLNKPTORMYTCMPLYH 280
AAHSLCTASVIHGGGTVVLSRKFSHKKFWPEVVASEANI 320
IQYVGELGRYLLNGPKSPYDRAHKVQMAWGNGMRPDVWEA 360
FRERFNIPIIHELYAATDGLGSMTNRNAGPFTANCIALRG 400
      410      420      430      440
+-----+
LIWHWKFRNQEVLVKMDLDTDEIMRDRNGFAIRCAVNEPG 440
QMLFRLTPETLAGAPSYNNETATQSRRITDVFQKGDLEWF 480
KSGDMLRQDAEGRVYFVDRLGDTFRWKSENVSTNEVADVM 520
GTFPQIAETNVYGVLPVPGNDGRVRSNLCHGRRRDRVDIRF 560
AALAKHARDRLPGYAVPLFLRVTPALEYTGTLKIQKGRLEK 600
      610      620      630      640
+-----+
QEGIDPDKISGEDKLYWLPPGSDIYLPFGKMEWQGIVDKR 640
IRL 643
```

FIG. 81

aspergillus partial.DNA



```

      10      20      30      40
CTTTACCATTCATCAGCTTCATTCTGCATTTTCTAGCTTGA 40
CGGCAGCCGGGTCTACGCTGATCATCGGCCGCAAGTTCTC 80
CGCGAGAAACTTCATAAAGGAAGCGCGGAGAACGACGCC 120
ACGGTCATCCAGTACGTGGGTGAGACCTTGCGATATCTGC 160
TCGCCACCCCCGGTGAAACCGATCCAGTTACTGGCGAAGA 200
      210      220      230      240
CCTGGACAAAAAGCACAATATTCGAGCAGTATACGGCAAC 240
GGGCTACGGCCGGATATCTGGAACCGCTTCAAGGAGCGCT 280
TCAACGTGCCGACGGTTGCCGAATTTTATGCTGCAACCGA 320
GAGCCCAGGCGGAACATGGAACATTTCAACAAATGACTTC 360
ACTGCCGGAGCCATTGGGCACACTGGCGTGCTTAGTGGAT 400
      410      420      430      440
GGCTTCTTGGACGCGGCCTTACTATTGTGCGAGGTGGACCA 440
GGAATCACAGGAACCATGGCGCGATCCCCAAACCGGGTTC 480
TGCAAGCCGGTCCCGCGAGGCGAAGCAGGCGAGCTCCTGT 520
ATGCCATTGATCCGGCCGACCCGGGCGAGACCTTCCAGGG 560
CTACTACCGCAACTCCTTTAGAGCACACTGGCGGCCG 597

```

FIG. 82



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

aspergillus partial protein

10 20 30 40  
LYHSSASFCIFSLTAAGSTLIIGRKFSARNFIKEAREND 40  
TVIQYYGETLRYLLATPGETDPVTGEDLDKKNIRAVYGN 80  
GLRPDIWNRFKERFNVPTVAEFYAATESPGGTWNYSTNDF 120  
TAGAIGHTGVLSGWLLGRGLTIVEVDQESQEPWRDPQTGF 160  
CKPVPRGEAGELLYAIDPADPGETFQGYRNSFRAHWRP 199

FIG. 83



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

mgFATP partial DNA

```
      10      20      30      40
+-----+
GCAAAGGCCGACGCGTGGCTGCGGACGGGTAACGTGATCA 40
GGGCGGACAACGAAGGGCGACTCTTCTTCCACGACCGGAT 80
CGGAGACACGTTCCGATGGAAGGGAGAGACNGTCAGCACA 120
CAAGAGGTCAGTTTGGTGCTCGGACGACACGACTCAATCA 160
AGGAGGCCAACGTGTACGGCGTGACGGTGCCGAACCACGA 200
      210      220      230      240
+-----+
CGGGCGGGCCGGCTGCGCTGCGCTCACGCTATCAGACGCT 240
CTGGCGACTGAAAAGAAGCTGGGCGATGAGCTGCTAAAGG 280
GATTGGCTACTCACTCGTCGACTTCGCTTCCCAAGTTTGC 320
GGTGCCGCAGTTCCTACGGGTGGTGCGCGGCGAGATGCAG 360
TCAACGGGCACCAACAAGCAACAGAAGCACGACCTGAGGG 400
      410      420      430      440
+-----+
TGCAGGGTGTAGAGCCGGGCAAGGTGGGCGTAGACGAGGT 440
GTACTGGTTGCGGGGAGGGACATATGTACCATTGGAACA 480
GAGGATTGGGATGGGTTGAAGAAGGGTCTTGTGAAGTTGT 520
GA 522
```

FIG. 84

mgFATP partial protein

```
      10      20      30      40
+-----+
AKADAWLRTGNVIRADNEGRLFFHDRIGDTFRWKGETVST 40
QEVSLVLGRHDSIKEANVYGVTVPNHDGRAGCAALTLSDA 80
LATEKKLGDLLKGLATHSSTSLPKFAVPQFLRVVRGEMQ 120
STGTNKQQKHDLRVQGVPEPGKVGVDVYWLRRGGTYVPFGT 160
EDWDGLKKGLVKL 173
```

FIG. 85



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

scFATP coding only DNA

```

      10      20      30      40
+-----+
ATGTCTCCCATACAGGTTGTTGTCTTTGCCTTGTC AAGGA 40
TTTTCTGCTATTATTCAGACTTATCAAGCTAATTATAAC 80
CCCTATCCAGAAATCACTGGGTTATCTATTTGGTAATTAT 120
TTTGATGAATTAGACCGTAAATATAGATACAAGGAGGATT 160
GGTATATTATTCCTTACTTTTTGAAAAGCGTGTTTTGTTA 200

      210      220      230      240
+-----+
TATCATTGATGTGAGAAGACATAGGTTTCAAACTGGTAC 240
TTATTTATTA AACAGGTCCAACAAAATGGTGACCATT TAG 280
CGATTAGTTACACCCGTCCCATGGCCGAAAAGGGAGAATT 320
TCAACTCGAAACCTTTACGTATATTGAACTTATAACATA 360
GTGTTGAGATTGTCTCATATTTTGCATTTTGATTATAACG 400

      410      420      430      440
+-----+
TTCAGGCCGGTGACTACGTGGCAATCGATTGTACTAATAA 440
ACCTCTTTTTCGTATTTTTATGGCTTTCTTTGTGGAACATT 480
GGGGCTATTCCAGCTTTTTTAACTATAATACTAAAGGCA 520
CTCCGCTGGTTCACTCCCTAAAGATTTCCAATATTACGCA 560
GGTATTTATTGACCCTGATGCCAGTAATCCGATCAGAGAA 600

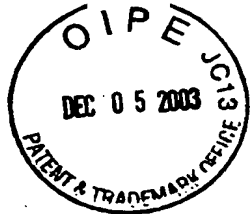
      610      620      630      640
+-----+
TCGGAAGAAGAAATCAAAAACGCACTTCCTGATGTTAAAT 640
TAACTATCTTGAAGAACAAGACTTAATGCATGAACTTTT 680
AAATTCGCAATCACC GGAATTCTTACAACAAGACAACGTT 720
AGGACACCACTAGGCTTGACCGATTTTAAACCTCTATGT 760
TAATTTATACATCTGGAACCACTGGTTTGCCTAAATCCGC 800

      810      820      830      840
+-----+
TATTATGTCTTGGAGAAAATCCTCCGTAGGTTGTCAAGTT 840
TTTGGTCATGTTTTACATATGACTAATGAAAGCACTGTGT 880
TCACAGCCATGCCATTGTTCCATTCAACTGCTGCCTTATT 920
AGGTGCGTGCGCCATTCTATCTCACGGTGGTTGCCTTGCG 960
TTATCGCATAAATTTTCTGCCAGTACATTTTGGAAGCAAG 1000

     1010     1020     1030     1040
+-----+
TTTATTTAACAGGAGCCACGCACATCCAATATGTCGGAGA 1040
AGTCTGTAGATACCTGTTACATACGCCAATTTCTAAGTAT 1080
GAAAAGATGCATAAGGTGAAGTTGCTTATGGTAACGGGC 1120
TGAGACCTGACATCTGGCAGGACTTCAGGAAGAGGTTCAA 1160
CATAGAAGTTATTGGTGAATTCTATGCCGCAACTGAAGCT 1200

```

FIG. 86A



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

1210 1220 1230 1240  
CCTTTTGCTACAACCTACCTTCCAGAAAGGTGACTTTGGAA 1240  
TTGGCGCATGTAGGAACCTATGGTACTATAATTCAATGGTT 1280  
TTTGTCATTCCAACAAACATTGGTAAGGATGGACCCAAAT 1320  
GACGATTCCGTTATATATAGAAATTCCAAGGGTTTCTGCG 1360  
AAGTGGCCCCCTGTTGGCGAACCAGGAGAAATGTTAATGAG 1400  
1410 1420 1430 1440  
AATCTTTTTCCCTAAAAAACCAGAAACATCTTTTCAAGGT 1440  
TATCTTGGTAATGCCAAGGAAACAAAGTCCAAAGTTGTGA 1480  
GGGATGTCTTCAGACGTGGCGATGCTTGGTATAGATGTGG 1520  
AGATTTATTAAAAGCGGACGAATATGGATTATGGTATTTT 1560  
CTTGATAGAATGGGTGATACTTTTCAGATGGAAATCTGAAA 1600  
1610 1620 1630 1640  
ATGTTTCCACTACTGAAGTAGAAGATCAGTTGACGGCCAG 1640  
TAACAAAGAACAATATGCACAAGTTCTAGTTGTTGGTATT 1680  
AAAGTACCTAAATATGAAGGTAGAGCTGGTTTTGCAGTTA 1720  
TTAAACTAACTGACAACCTCTCTTGACATCACTGCAAAGAC 1760  
CAAATTATTAAATGATTCCTTGAGCCGGTTAAATCTACCG 1800  
1810 1820 1830 1840  
TCTTATGCTATGCCCCCTATTTGTTAAATTTGTTGATGAAA 1840  
TTAAAATGACAGATAACCTCATAAAATTTTGA 1872

FIG. 86B



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

scFATP coding only protein

```

      10      20      30      40
      |      |      |      |
MSPIQVVVFALSRIFLLLFRLIKLIITPIQKSLGYLFGNY 40
FDELD RKYRYKEDWYIIPYFLKSVFCYIIDVRRHRFQNWY 80
LFIKQVOQNGDHLAISYTRPMAEKGEFQLETFTYIETYN I 120
VLRLSHILHFDYNVOAGDYVAIDCTNKPLFVFLWLSLWNI 160
GAIPAFLNYNTKGTPLVHSLKISNITQVFIDPDASNP IRE 200

      210      220      230      240
      |      |      |      |
SEEEIKNALPDVKLNYLEEQDLMHELLNSQSPEFLQODNV 240
RTPGLGLTDFKPSMLIYTSGTTGLPKSAIMSWRKSSVGCQV 280
FGHVLHMTNESTVFTAMPLFHSTAALLGACAILSHGGCLA 320
LSHKFSASTFWKQVYLTGATHIQYVGEVCRYLLHTPIISKY 360
EKMHKVKVAYGNGLRPDIWQDFRKRFNIEVIGEFYAATEA 400

      410      420      430      440
      |      |      |      |
PFATTTFQKGDFGIGACRNYGTIIQWFLSFQQTIVRMDPN 440
DDSVIYRNSKGFCEVAPVGEPEGMLMRIFFPKKPETSFGQ 480
YLGNAKETKSKVVROVFRRGDAWYRCGDLKADEYGLWYF 520
LDRMGDTFRWKSENVSTTEVEDQLTASNKEQYAQVLVVG I 560
KVPKYEGRAGFAVIKLTDNSLDITAKTKLLNDSLSRLNLP 600

      610      620      630      640
      |      |      |      |
SYAMPLFVKFVDEIKMTDNLIK F 623

```

FIG. 87





Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

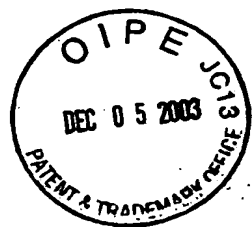
mtFATP coding only DNA

```

      10      20      30      40
+-----+
GTGTCCGATTACTACGGCGGCGCACACACAACGGTCAGGC 40
TGATCGACCTGGCAACTCGGATGCCGCGAGTGTTGGCGGA 80
CACGCCGGTGATTGTGCGTGGGGGCAATGACCGGGCTGCTG 120
GCCCCGGCCGAATTCCAAGGCGTCGATCGGCACGGTGTTCC 160
AGGACCGGGCCGCTCGCTACGGTGACCGAGTCTTCCTGAA 200
      210      220      230      240
+-----+
ATTCGGCGATCAGCAGCTGACCTACCGCGACGCTAACGCC 240
ACCGCCAACCGGTACGCCGCGGTGTTGGCCGCCCGCGGCG 280
TCGGCCCCGGCGACGTCGTTGGCATCATGTTGCGTAACTC 320
ACCCAGCACAGTCTTGGCGATGCTGGCCACGGTCAAGTGC 360
GGCGCTATCGCCGGCATGCTCAACTACCACCAGCGCGGCG 400
      410      420      430      440
+-----+
AGGTGTTGGCGCACAGCCTGGGTCTGCTGGACGCGAAGGT 440
ACTGATCGCAGAGTCCGACTTGGTCAGCGCCGTCGCCGAA 480
TGCGGCGCCTCGCGCGGCGGGTAGCGGGCGACGTGCTGA 520
CCGTCGAGGACGTGGAGCGATTGCCCCAACGGCGCCCGC 560
CACCAACCCGGCGTCGGCGTTCGGCGGTGCAAGCCAAAGAC 600
      610      620      630      640
+-----+
ACCGCGTTCTACATCTTCACCTCGGGCACCACCGGATTTG 640
CCAAGGCCAGTGTCATGACGCATCATCGGTGGCTGCGGGC 680
GCTGGCCGTCTTCGGAGGGATGGGGCTGCGGCTGAAGGGT 720
TCCGACACGCTCTACAGCTGCCTGCCGCTGTACCACAACA 760
ACGCGTTAACGGTCGCGGTGTCGTCGGTGATCAATTCTGG 800
      810      820      830      840
+-----+
GGCGACCCTGGCGCTGGGTAAGTCGTTTTCGGCGTCGCGG 840
TTCTGGGATGAGGTGATTGCCAACCGGGCGACGGCGTTTCG 880
TCTACATCGGCGAAATCTGCCGTTATCTGCTCAACCAGCC 920
GGCCAAGCCGACCGACCGTGCCCAACAGGTGCGGGTGATC 960
TGCGGTAACGGGCTGCGGCCGGAGATCTGGGATGAGTTCA 1000
      1010      1020      1030      1040
+-----+
CCACCCGCTTCGGGGTTCGCGCGGGTGTGCGAGTTCTACGC 1040
CGCCAGCGAAGGCAACTCGGCCCTTATCAACATCTTCAAC 1080
GTGCCAGGACCGCCGGGGTATCGCCGATGCCGCTTGCTT 1120
TTGTGGAATACGACCTGGACACCGGCGATCCGCTGCGGGA 1160
TGCGAGCGGGCGAGTGCGTCGGGTACCCGACGGTGAACCC 1200

```

FIG. 88A



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

1210 1220 1230 1240  
GGCCTGTTGCTTAGCCGGGTCAACCGGCTGCAGCCGTTTCG 1240  
ACGGCTACACCGACCCGGTTGCCAGCGAAAAGAAGTTGGT 1280  
GCGCAACGCTTTTTCGAGATGGCGACTGTTGGTTCAACACC 1320  
GGTGACGTGATGAGCCCGCAGGGCATGGGCCATGCCGCCT 1360  
TCGTGATCGGCTGGGCGACACCTTCCGCTGGAAGGGCGA 1400  
1410 1420 1430 1440  
GAATGTCGCCACCACTCAGGTCTGAAGCGGCACTGGCCTCC 1440  
GACCAGACCGTCGAGGAGTGCACGGTCTACGGCGTCCAGA 1480  
TTCCGCGCACCGGCGGGCGCGCCGGAATGGCCGCGATCAC 1520  
ACTGCGCGCTGGCGCCGAATTTCGACGGCCAGGCGCTGGCC 1560  
CGAACGGTTTACGGTCACTTGCCCCGGCTATGCACTTCCGC 1600  
1610 1620 1630 1640  
TCTTTGTTCTGGGTAGTGGGGTCTGCTGGCGCACACCACGAC 1640  
GTTCAAGAGTCGCAAGGTGGAGTTGCGCAACCAGGCCTAT 1680  
GGCGCCGACATCGAGGATCCGCTGTACGTACTGGCCGGCC 1720  
CGGACGAAGGATATGTGCCGTACTACGCCGAATACCCTGA 1760  
GGAGGTTTCGCTCGGAAGGCGACCGCAGGGCTAG 1794

FIG. 88B

mtFATP coding only protein

10 20 30 40  
MSDYYGGAHTTVRLIDLATRMPrVLADTPVIVRGAMTGLL 40  
ARNPSKASIGTVFQDRAARYGDRVFLKFGDQQLTYRDANA 80  
TANRYAAVLAARGVGP GDVVGIMLRNSPSTVLAMLATVKC 120  
GA IAGMLNYHQRGEVLHSLGLLDAKVLIAESDLVSAVAE 160  
CGASRGRVAGDVLTVEDVERFATTAPATNPASASAVQAKD 200  
210 220 230 240  
TAFYIFTSGTTGFPKASVMTHHRWLRALAVFGGMGLRLKG 240  
SDTLYSCLPLYHNNALTVAVSSVINSGATLALGKSFSASR 280  
FWDEVIANRATAFVYIGEICRYLLNQPAKPTDRAHQVRVI 320  
CGNGLRPEIWDEFTTRFGVARVCEFYAASEGNSAFINIFN 360  
VPRTAGVSPMPLAFVEYDLDOTGDPLRDASGRVRRVPDGE 400  
410 420 430 440  
GLLLSRVNRLOPFDGYTDPVASEKKLVRNAFRDGDWCFNT 440  
GDVMSPOGMGHA AFVDRLGDTFRWKGENVATTQVEAALAS 480  
DQTVEECTVYGVQIPRTGGRAGMAAITLRAGAEFDGQALA 520  
RTVYGHLPGYALPLFVRVVGSLAHTTTFKSRKVELRNQAY 560  
GADIEDPLYVLAGPDGYVPYYAEYPEEVSLGRRPQG 597

FIG. 89



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

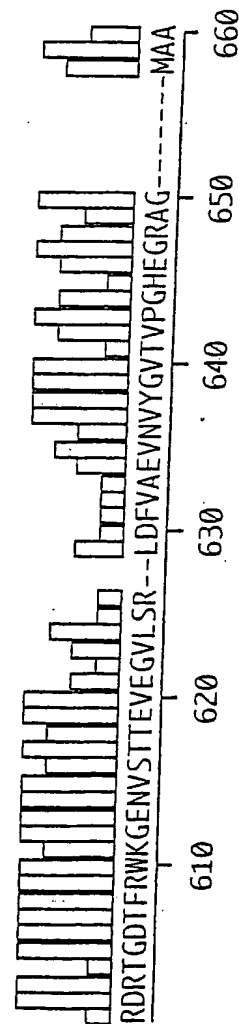
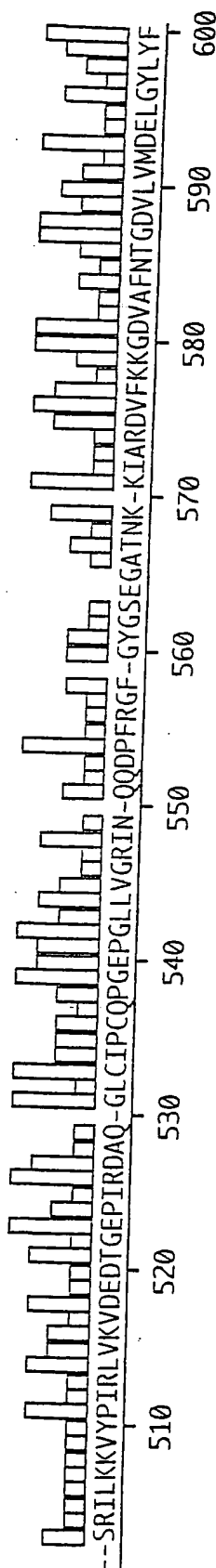
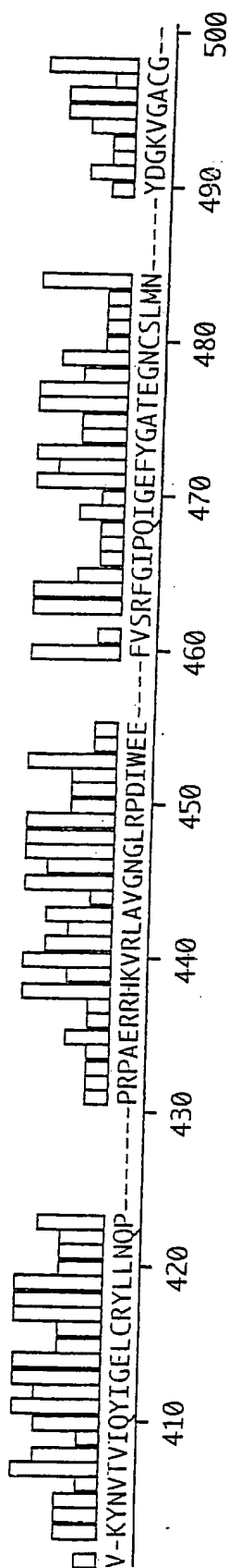
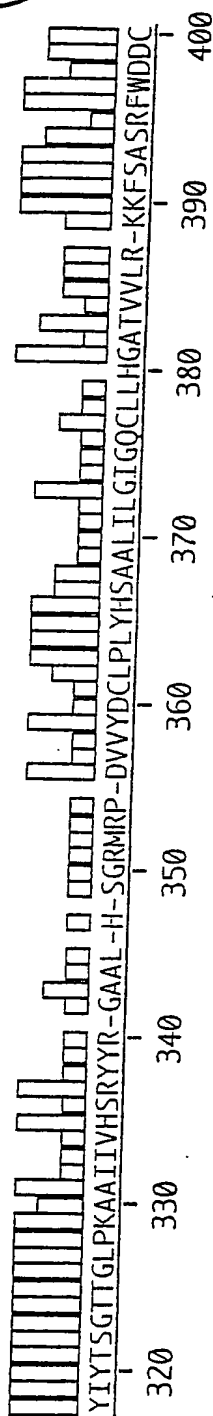


FIG. 90



hsVLACS full length protein  
Hydrophilicity Plot-Kyte-Doolittle

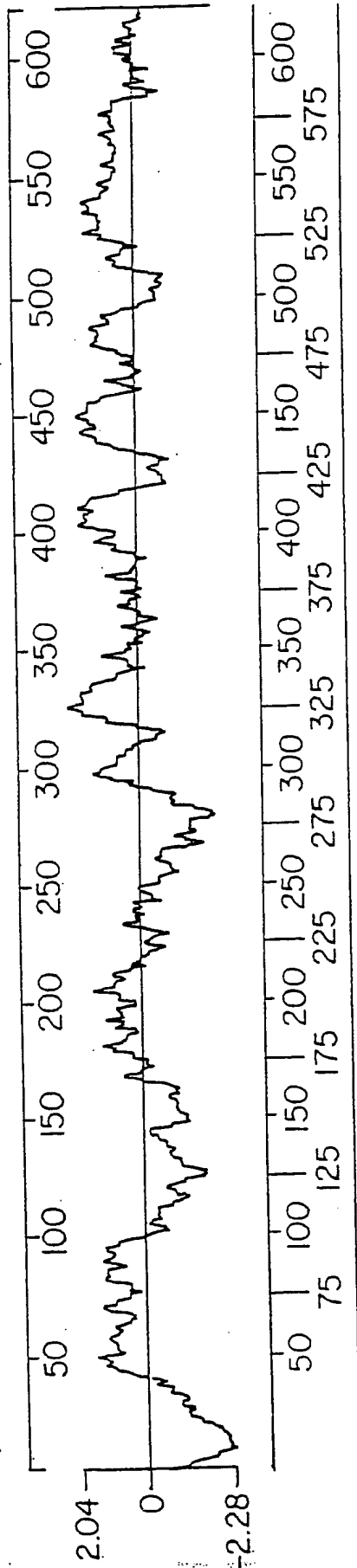


FIG. 91

hsFATP3 partial protein  
Hydrophilicity Plot-Kyte-Doolittle

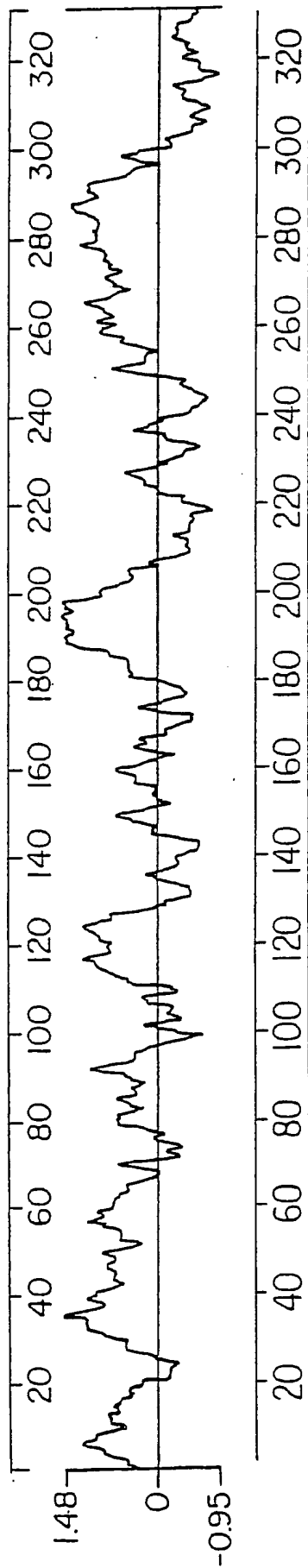


FIG. 92



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

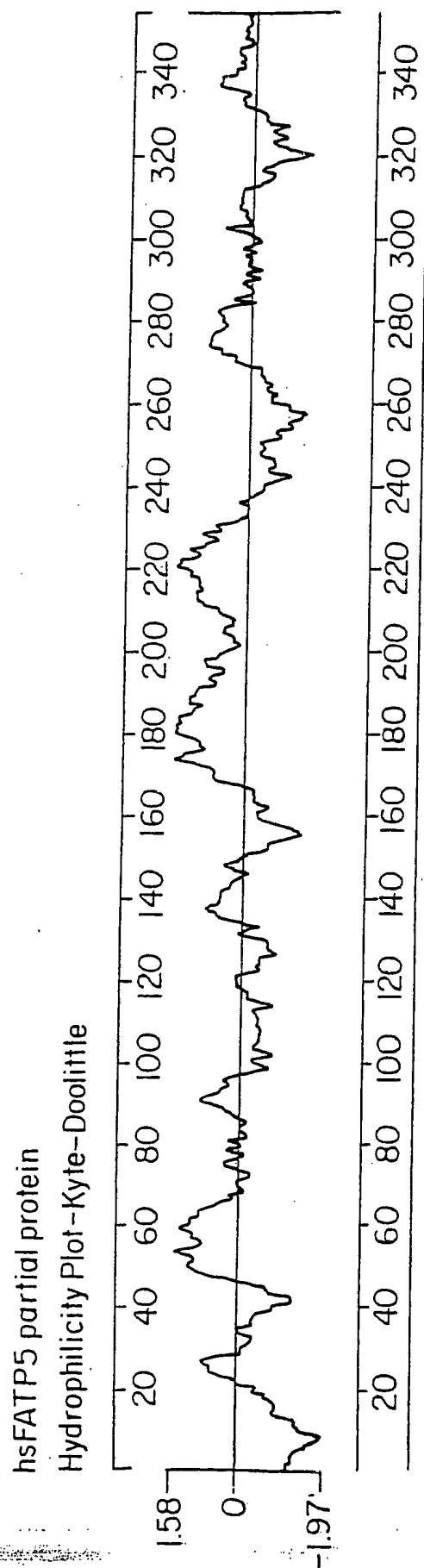
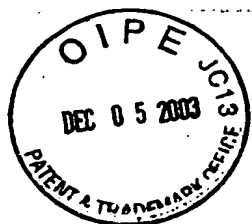


FIG 93



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

**hsFATP3**

1	cga	ccc	acg	cgt	ccg	ggg	atg	ttt	gcg	agc
1							M	F	A	S
31	ggc	tgg	aac	cag	acg	gtg	ccg	ata	gag	gaa
5	G	W	N	Q	T	V	P	I	E	E
61	gcg	ggc	tcc	atg	gct	gcc	ctc	ctg	ctg	ctg
15	A	G	S	M	A	A	L	L	L	L
91	ccc	ctg	ctg	ctg	ttg	cta	ccg	ctg	ctg	ctg
25	P	L	L	L	L	L	P	L	L	L
121	ctg	ctg	aag	cta	cac	ctc	tgg	ccg	cag	ttg
35	L	L	K	L	H	L	W	P	Q	L
151	cgc	tgg	ctt	ccg	gcg	gac	ttg	gcc	ttt	gcg
45	R	W	L	P	A	D	L	A	F	A
181	gtg	cga	gct	ctg	tgc	tgc	aaa	agg	gct	ctt
55	V	R	A	L	C	C	K	R	A	L
211	cga	gct	cgc	gcc	ctg	gcc	gcg	gct	gcc	gcc
65	R	A	R	A	L	A	A	A	A	A
241	gac	ccg	gaa	ggt	ccc	gag	ggg	ggc	tgc	agc
75	D	P	E	G	P	E	G	G	C	S

FIG. 94A



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

271     ctg gcc tgg cgc ctc gcg gaa ctg gcc cag  
85       L   A   W   R   L   A   E   L   A   Q  
  
301     cag cgc gcc gcg cac acc ttt ctc att cac  
95       Q   R   A   A   H   T   F   L   I   H  
  
331     ggc tgc cgg cgc ttt agc tac tca gag gcg  
105      G   S   R   R   F   S   Y   S   E   A  
  
361     gag cgc gag agt aac agg gct gca cgc gcc  
115      E   R   E   S   N   R   A   A   R   A  
  
391     ttc cta cgt gcg cta ggc tgg gac tgg gga  
125      F   L   R   A   L   G   W   D   W   G

FIG. 94B

421     ccc gac ggc ggc gac agc ggc gag ggg agc  
135      P   D   G   G   D   S   G   E   G   S  
  
451     gct gga gaa ggc gag cgg gca gcg ccg gga  
145      A   G   E   G   E   R   A   A   P   G  
  
481     gcc gga gat gca gcg gcc gga agc ggc gcg  
155      A   G   D   A   A   A   G   S   G   A  
  
521     gag ttt gcc gga ggg gac ggt gcc gcc aga  
165      E   F   A   G   G   D   G   A   A   R  
  
541     ggt gga gga gag ccc gcc gcc cct ctg tca  
175      G   G   G   E   P   A   A   P   L   S  
  
571     cct gga gca act gtg gcg ctg ctc ctc ccc  
185      P   G   A   T   V   A   L   L   L   P  
  
601     gct ggc cca gag ttt ctg tgg ctc tgg ttc  
195      A   G   P   E   F   L   W   L   W   F

FIG. 94C



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

631	ggg ctg gcc aag gcc ggc ctg cgc act gcc
205	G L A K A G L R T A
661	ttt gtg ccc acc gcc ctg cgc cgg ggc ccc
215	F V P T A L R R G P
691	ctg ctg cac tgc ctc cgc agc tgc ggc gcg
225	L L H C L R S C G A
721	cgc gcg ctg gtg ctg gcg cca gag ttt ctg
235	R A L V L A P E F L
751	gag tcc ctg gag ccg gac ctg ccc gcc ctg
245	E S L E P D L P A L
781	aga gcc atg ggg ctc cac ctg tgg gct gca
255	R A M G L H L W A A
811	ggc cca gga acc cac cct gct gga att agc
265	G P G T H P A G I S
841	gat ttg ctg gct gaa gtg tcc gct gaa gtg
275	D L L A E V S A E V

FIG. 94D

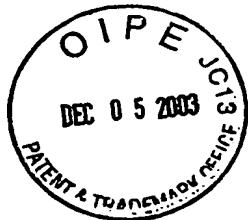




Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

871	gat	ggg	cca	gtg	cca	gga	tac	ctc	tct	tcc
285	D	G	P	V	P	G	Y	L	S	S
901	ccc	cag	agc	ata	aca	gac	acg	tgc	ctg	tac
295	P	Q	S	I	T	D	T	C	L	Y
931	atc	ttc	acc	tct	ggc	acc	acg	ggc	ctc	ccc
305	I	F	T	S	G	T	T	G	L	P
961	aag	gct	gct	cgg	atc	agt	cat	ctg	aag	atc
315	K	A	A	R	I	S	H	L	K	I
991	ctg	caa	tgc	cag	ggc	ttc	tat	cag	ctg	tgt
325	L	Q	C	Q	G	F	Y	Q	L	C
1021	ggt	gtc	cac	cag	gaa	gat	gtg	atc	tac	ctc
335	G	V	H	Q	E	D	V	I	Y	L

FIG. 94E



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

1051	gcc	ctc	cca	ctc	tac	cac	atg	tcc	ggc	tcc
345	A	L	P	L	Y	H	M	S	G	S
1081	ctg	ctg	ggc	atc	gtg	ggc	tgc	atg	ggc	att
355	L	L	G	I	V	G	C	M	G	I
1111	ggg	gcc	aca	gtg	gtg	ctg	aaa	tcc	aag	ttc
365	G	A	T	V	V	L	K	S	K	F
1141	tgc	gct	ggt	cag	ttc	tgg	gaa	gat	tgc	cag
375	S	A	G	Q	F	W	E	D	C	Q
1171	cag	cac	agg	gtg	acg	gtg	ttc	cag	tac	att
385	Q	H	R	V	T	V	F	Q	Y	I
1201	ggg	gag	ctg	tgc	cga	tac	ctt	gtc	aac	cag
395	G	E	L	C	R	Y	L	V	N	Q
1231	ccc	ccg	agc	aag	gca	gaa	cgt	ggc	cat	aag
405	P	P	S	K	A	E	R	G	H	K
1261	gtc	cgg	ctg	gca	gtg	ggc	agc	ggg	ctg	cgc
415	V	R	L	A	V	G	S	G	L	R

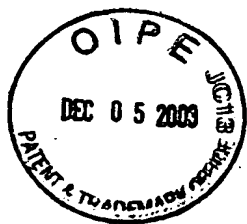
FIG. 94F



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

1291	cca	gat	acc	tgg	gag	cgt	ttt	gtg	cgg	cgc
425	P	D	T	W	E	R	F	V	R	R
1321	ttc	ggg	ccc	ctg	cag	gtg	ctg	gag	aca	tat
435	F	G	P	L	Q	V	L	E	T	Y
1351	gga	ctg	aca	gag	ggc	aac	gtg	gcc	acc	atc
445	G	L	T	E	G	N	V	A	T	I
1381	aac	tac	aca	gga	cag	cgg	ggc	gct	gtg	ggg
455	N	Y	T	G	Q	R	G	A	V	G
1411	cgt	gct	tcc	tgg	ctt	tac	aag	cat	atc	ttc
465	R	A	S	W	L	Y	K	H	I	F
1441	ccc	ttc	tcc	ttg	att	cgc	tat	gat	gtc	acc
475	P	F	S	L	I	R	Y	D	V	T
1471	aca	gga	gag	cca	att	cgg	gac	ccc	cag	ggg
485	T	G	E	P	I	R	D	P	Q	G
1501	cac	tgt	atg	gcc	aca	tct	cca	ggt	gag	cca
495	H	C	M	A	T	S	P	G	E	P
1531	ggg	ctg	ctg	gtg	gcc	ccg	gta	agc	cag	cag
505	G	L	L	V	A	P	V	S	Q	Q

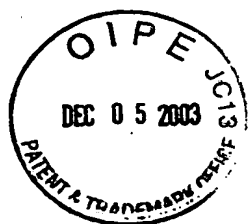
FIG. 94G



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

1561	tcc	cca	ttc	ctg	ggc	tat	gct	ggc	ggg	cca
515	S	P	F	L	G	Y	A	G	G	P
1591	gag	ctg	gcc	cag	ggg	aag	ttg	cta	aag	gat
525	E	L	A	Q	G	K	L	L	K	D
1621	gtc	ttc	cgg	cct	ggg	gat	gtt	ttc	ttc	aac
535	V	F	R	P	G	D	V	F	F	N
1651	act	ggg	gac	ctg	ctg	gtc	tgc	gat	gac	caa
545	T	G	D	L	L	V	C	D	D	Q
1681	ggt	ttt	ctc	cgc	ttc	cat	gat	cgt	act	gga
555	G	F	L	R	F	H	D	R	T	G
1711	gac	acc	ttc	agg	tgg	aag	ggg	gag	aat	gtg
565	D	T	F	R	W	K	G	E	N	V
1741	gcc	aca	acc	gag	gtg	gca	gag	gtc	ttc	gag
575	A	T	T	E	V	A	E	V	F	E

FIG. 94H



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

1741	gcc	aca	acc	gag	gtg	gca	gag	gtc	ttc	gag
575	A	T	T	E	V	A	E	V	F	E
1771	gcc	cta	gat	ttt	ctt	cag	gag	gtg	aac	gtc
585	A	L	D	F	L	Q	E	V	N	V
1801	tat	gga	gtc	act	gtg	cca	ggg	cat	gaa	ggc
595	Y	G	V	T	V	P	G	H	E	G
1831	agg	gct	gga	atg	gca	gcc	cta	gtt	ctg	cgt
605	R	A	G	M	A	A	L	V	L	R
1861	ccc	ccc	cac	gct	ttg	gac	ctt	atg	cag	ctc
615	P	P	H	A	L	D	L	M	Q	L
1891	tac	acc	cac	gtg	tct	gag	aac	ttg	cca	cct
625	Y	T	H	V	S	E	N	L	P	P
1921	tat	gcc	cgg	ccc	cga	ttc	ctc	agg	ctc	cag
635	Y	A	R	P	R	F	L	R	L	Q

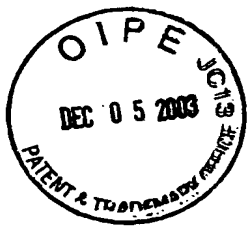
FIG. 94I



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

1951	gag tct ttg gcc acc aca gag acc ttc aaa
645	E S L A T T E T F K
1981	cag cag aaa gtt cgg atg gca aat gag ggc
655	Q Q K V R M A N E G
2011	ttc gac ccc agc acc ctg tct gac cca ctg
665	F D P S T L S D P L
2041	tac gtt ctg gac cag gct gta ggt gcc tac
675	Y V L D Q A V G A Y
2071	ctg ccc ctc aca act gcc cgg tac agc gcc
685	L P L T T A R Y S A
2101	ctc ctg gca gga aac ctt cga atc tga gaa
695	L L A G N L R I *
2131	ctt cca cac ctg agg cac ctg aga gag gaa
2161	ctc tgt

FIG. 94J



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

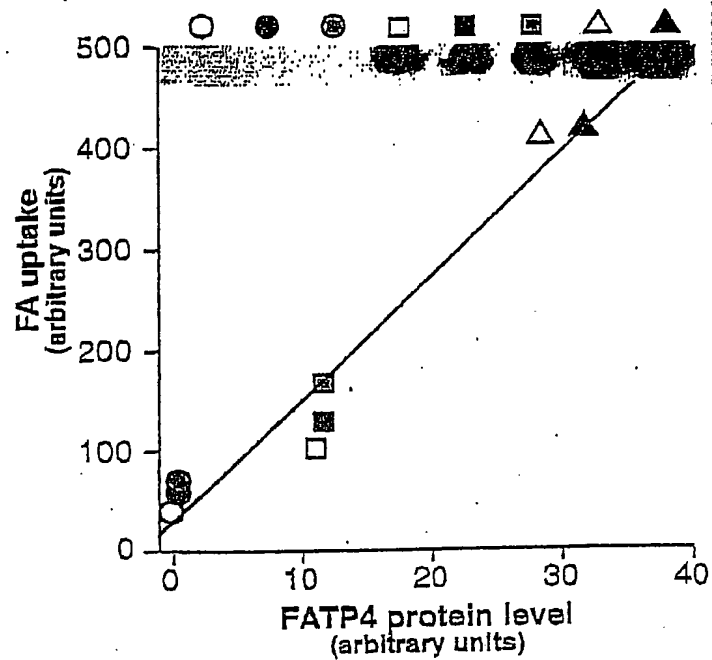


Figure 95



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

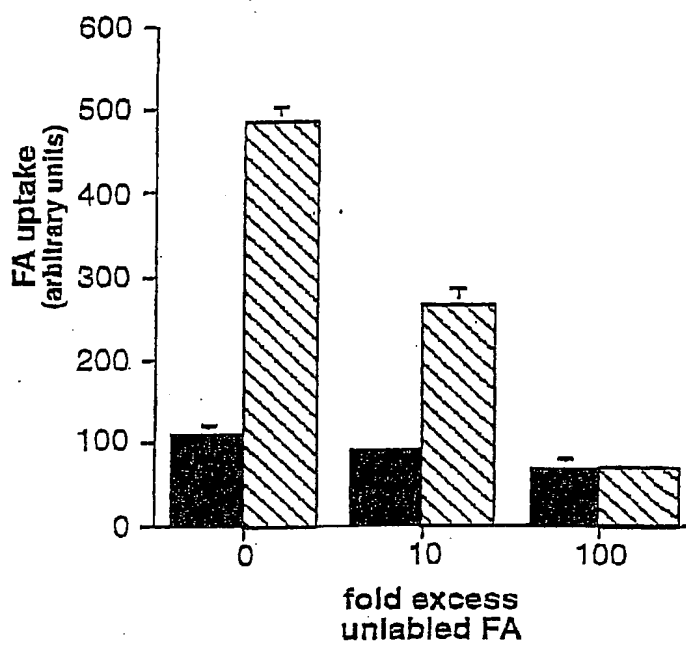


Figure 96





Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

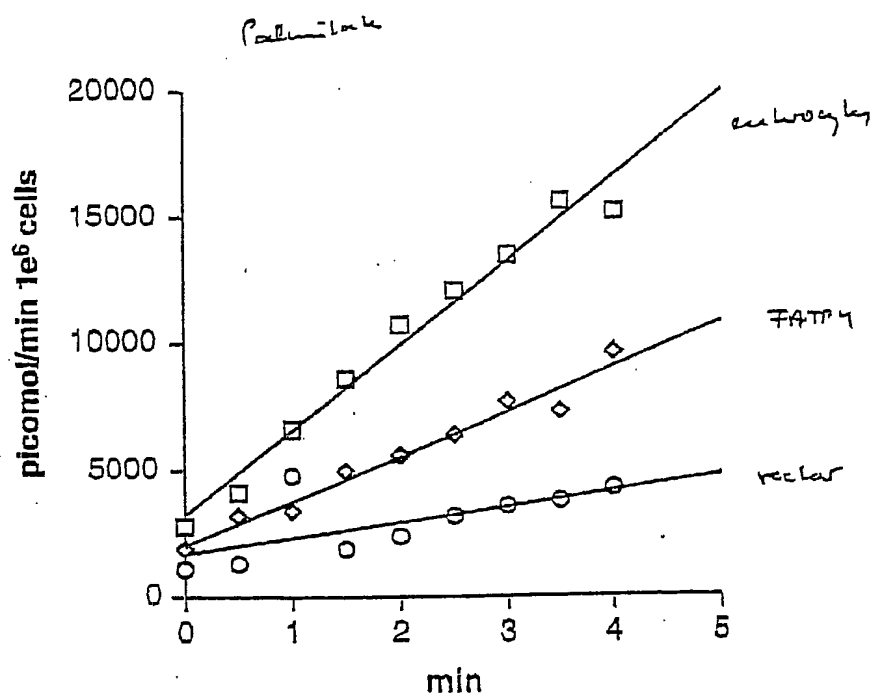
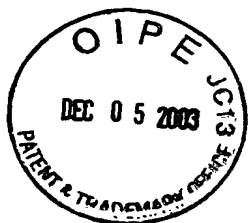


Figure 97



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

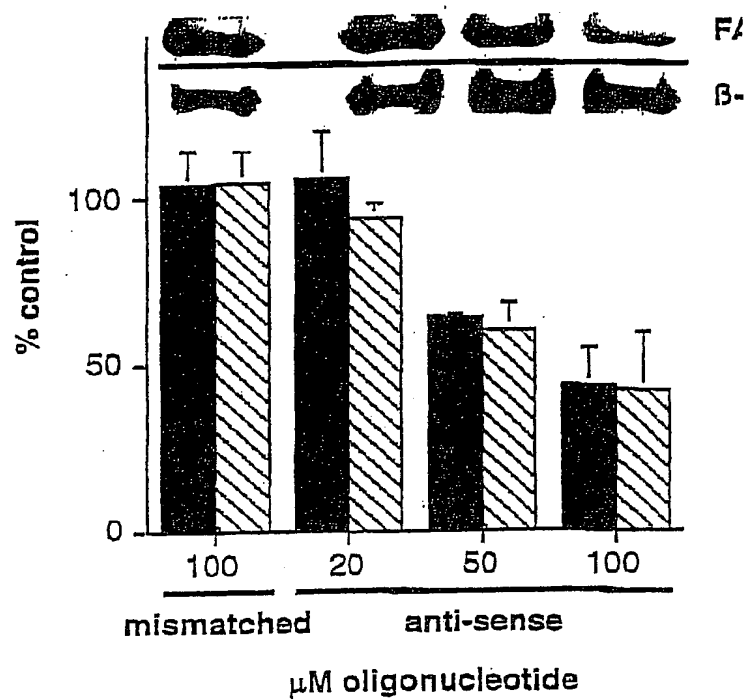


Figure 98



Appl'n No.: 09/405,504  
Title: METHODS OF IDENTIFYING...  
Inventors: Andreas Stahl, *et al.*  
Replacement Sheet

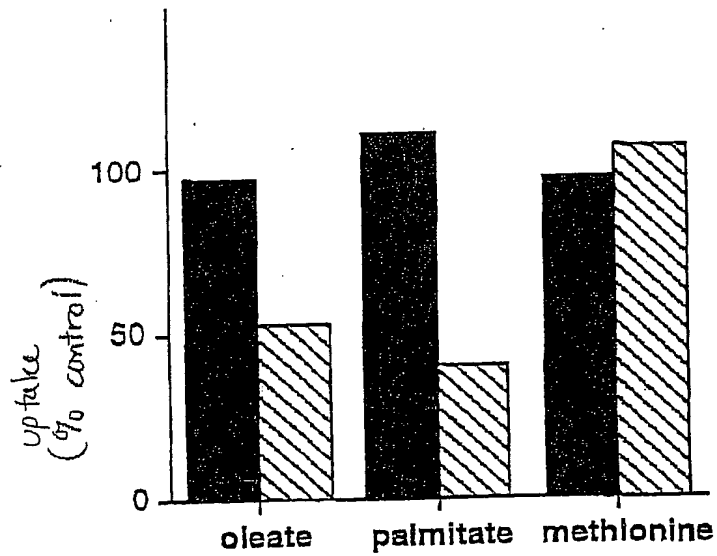


Figure 99